## STIC-Biotech/ChemLib

From:

Spector, Lorraine

Wednesday, September 04, 2002 9:35 AM STIC-Biotech/ChemLib

Sent: To: Subject:

Serial No. 09/912436

Please search SEQ ID NO:5 and 6

Point of Contact: Mona Smith

Technical Information Specialist

CM1 6A01

Tel: 308-3278

-pending

-issued

-commercial

I am interested in hits that are slightly LESS than 100% identical-please print results down to 90% identity, at least.

Also particularly interested in mutations at nucleotides 286-294 of SEQ ID NO:5, if there's any way to search for that specifically.

Thanks.

Lorraine Spector 703-308-1793

U.S. Patent and Trademark Office

Art Unit 1646

lorraine.spector@uspto.gov

CM1-10B11

10019

Searcher: M. Buine	
Phone:	-
Location:	•
Date Picked Up: 9/5/02	
Date Completed: 9/10/02	-
Searcher Prep/Review: 10	
Clerical: 4	
Online times /A	

TYPE OF SEARCH:				
NA Sequences:				
AA Sequences:				
Structures:				
Bibliographic:				
Litigation:				
Full text:				
Patent Family: _				
Other:				

VENDOR/COST (w	vhere applic.)
STN:	
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Questel/Orbit: _	
DRLink:	
Lexis/Nexis:	
Sequence Sys.:	
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Other (specify):	

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Result
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2: /cgn2_6/ptodata/1,
3: /cgn2_6/ptodata/1,
4: /cgn2_6/ptodata/1,
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US-08-609-443B-13
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US-08-669-443B-7
US-08-699-443B-7
US-08-699-443B-7
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## ALIGNMENTS

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US-08-469-427A-5
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US-08-469-427A-5
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                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/469,427A
FILING DATE: 06-JUN-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/ACENT INFORMATION:
NAME: Evans, Joseph D
REGISTRATION NUMBER: 26,269
REGISTRATION NUMBER: 26,269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                              TELEPHONE: (202) 628-8
TELEFAX: (202) 628-884
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
               HYPOTHETICAL: NO ORIGINAL SOURCE: TISSUE TYPE: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                      MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 41 TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
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APPLICANT: Olofsson, Biro
APPLICANT: Alitalo, Kari
APPLICANT: Pajusola, Kati
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                          TYPE: amino acid
STRANDEDNESS: Si
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                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/609,443B
FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
TECHNOLOGY
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
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HYPOTHETICAL: NO ORIGINAL SOURCE: TISSUE TYPE: 6
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APPLICANT:
                                                                                                                                                                                              REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08
FILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
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                                                                              STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                    TOPOLOGY:
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                                                                                                              188 amino acids
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OLOFSSON,
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PAJUSOLA, Katri
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                                                                  linear
                                  protein
NO
                                                                                                                                                                                 202) 628-8800
   adult mouse heart
                                                                              single
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Query Match
Best Local Similarity
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Best Local
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FILING DATE: 06-DEC-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 08/397,651
APPLICATION NUMBER: US 08/397,651
APPLICATION UMBER: US 08/397,651
                                                                                                                                                                                                            TELEFAX: (202) 628-884
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                              HYPOTHETICAL: NO ORIGINAL SOURCE: TISSUE TYPE: a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: BM PC COMPATIBLE
OPERATING SYSTEM: PC DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,
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CORRESPONDENCE ADDRESS:
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                                                                                                                              MOLECULE TYPE:
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amino acid
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ALITALO, Kari
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Pred. No. 1.5e-68;
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 644; DB 2;
No. 1.5e-68;
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US-08-609-443B-13
                                                                        US-08-609-443B-13
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TELEFAX: (202) ...
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
TENGTH: 207 amino acids
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Query Match 89.3
Best Local Similarity 88.3
Matches 120; Conservative
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                                                                                     MOLECULE TYPE:
ORIGINAL SOURCE:
TISSUE TYPE:
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NAME: EVANS, Joseph D
REGISTRATION NUMBER: 26,
                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/569,063
FILING DATE: 06-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/609,443B
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                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 01-MAR-PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 435
PRIOR APPLICATION DATA:
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FILING DATE: 01-MAR-1995
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                               TYPE: amino acid
TOPOLOGY: linear
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OLOFSSON, Birgitta
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            89.2%;
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Score 641; DB 2; 1
Pred. No. 3.7e-68;
6; Mismatches 10;
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                           Length 207;
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             MSPLLRRLLLVALLQLARTQAPVAQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL
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; MOLECULE TYPE: p:
; ORIGINAL SOURCE:
; TISSUE TYPE: mc
US-08-569-063C-13
                                                Query Match
Best Local Similarity
Matches 120; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/569,063
FILING DATE: 06-DEC-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 207 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 1200
CTTY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 QCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                            NAME: EVANS, Joseph D
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE:
1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL
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o. 5928939
                                                                                                                                                                                                                              amino acid
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VENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND
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OLOFSSON, Birgitta
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                                                  Conservative
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88.2%;
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                                                  Score 641; DB 2;
Pred. No. 3.7e-68;
6; Mismatches 10;
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                                                                                  Length 207;
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                                                                                                                                                                         Matches 121;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                              TOPOLOGY: linear MOLECULE TYPE: pro
                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (202) 628-88 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: Evans, Joseph D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 41979cp2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/469,427A
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                  ORIGINAL SOURCE:
TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
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APPLICANT: Alitalo, Kari
APPLICANT: Pajusola, Katri
TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B
TITLE OF INVENTION: DNA CODING THEREFOR
NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 195 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                        Local Similarity
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                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
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                                                                                                                           1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL 60
                                                                MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRM------QILMIRYPSSQLGE 113
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                 MSLEEHSQCECRPKKKDSAVKPD 136
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                                                MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQVPGPMGQILMIQYPSSQLGE
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 7, Application US/08469427A
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1200 G Street, N.W., Suite 700
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                                                                                                                                                                        Conservative
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Pred. No. 6e
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                                                                                                                                                                        Query Match
Best Local :
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GENERAL INFORMATION:
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                                                                                                                                                         Matches
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TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO: 7:
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APPLICANT:
APPLICANT:
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HYPOTHETICAL: N
ORIGINAL SOURCE:
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PRIOR APPLICATION UNDER: US 08/397,651
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 195 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION UNBER: US 08/569,063
FILING DATE: 06-DEC-1995
ATTORNEY/RGENT INFORMATION:
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114 MSLEEHSQCECRPKKKDSAVKPD 136
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                                                                                                                                                                   Match 87.7%;
Local Similarity 84.6%;
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REGISTRATION NUMBER: 26
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 01-MAR-1996
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                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
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ALITALO, Kari
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                                                                                                                                                      Score 630.5;
Pred. No. 6e-6
5; Mismatches
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TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 57
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                         1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL 60
                                                                                 MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRM-------QILMIRYPSSQLGE 113
MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQVPGPMGQILMIQYPSSQLGE 120
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                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                            Matches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (202) 628-884 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Bir
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Kat
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APPLICATION NUMBER: US 08
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: 1
FILING DATE: 06-JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Rel
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                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: PI
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121
          114 MSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,
REFERENCE/DOCKET NUMBER:
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FILING DATE: 06-DEC-1995
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OPERATING SYSTEM: PC-DOS/MS-DOS
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STRANDEDNESS: sir
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                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH:
                                                                                                                                                         1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL 60
                                                                            MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRM-----QILMIRYPSSQLGE 113
                                                                                                                            MSPLLRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL 60
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                                                             MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQVPGPMGQILMIQYPSSQLGE
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                                                                                                                                                                                                         87.7%;
84.6%;
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                                                                                                                                                                                          Score 630.5; DB 2;
Pred. No. 6e-67;
5; Mismatches 10;
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                                                                                                                                                                                                                          Length 195;
                                                                                                                                                                                          Indels
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RESULT 10
US-08-609-443B-9
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                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                   Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 133 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: VA
TITLE OF INVENTION: DN
NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
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                                                           121
                                                                                       121 QCECRPKKK 129
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS:
TOPOLOGY: lir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Evans, Joseph D
REGISTRATION NUMBER: 26
REFERENCE/DOCKET NUMBER:
                                                                                                                    61 MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIQYPSSQLGEMSLEEHS
                                                                                                                                                61 MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                     Match 85.1%;
Local Similarity 89.1%;
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                                                                                                                                                                                                          1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL
                                                         QCECRPKKK 129
                                                                                                                                                                              MSPLIRRLLIVALIQLARTQAPVSQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL
                                                                                                                                                                                                                                         115;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alitalo, Kari
                                                                                                                                                                                                                                                                                                                                                                                                                                        (202) 628-8844
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DNA CODING THEREFOR
17
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                                                                                                                                                                                                                                                     Score 612; DB 1; Pred. No. 5.7e-65;
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Suite 700
                                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                     Length 133;
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sequence 9, Application US/08609443B Patent No. 5840693

GENERAL INFORMATION:

APPLICANT: APPLICANT: APPLICANT:

OLOFSSON, Bir ALITALO, Kari

Birgitta

ERIKSSON, Ulf

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                                                                                                   Sequence 9, Application US/08569063C Patent No. 5928939
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/609,443B
FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/569,063
FILING DATE: 06-DEC-1995
ATTORNEY/ACENT INFORMATION:
NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: PAJUSOLA, KATTI
TITLE OF INVENTION: VASCULAR ENDOTHELIA
TITLE OF INVENTION: DNA CODING THEREFOR
                                                                 APPLICANT:
 CITLE OF
                 APPLICANT:
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                                                                                                                                                                                                         QCECRPKKK 129
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                                                                                                                                                                                                                                                                           MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIQYPSSQLGEMSLEEHS
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INVENTION:
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                                OLOFSSON, Bir
ALITALO, Kari
                PAJUSOLA,
                                                                 ERIKSSON, Ulf
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IBM PC compatible
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VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND
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                                                Birgitta
                 Katri
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Pred. No. 5.7e-65;
4; Mismatches 10
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                                                                                                                                                                                       Sequence 2
Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                            APPLICANT: Eriksson, Ulf
APPLICANT: Olofsson, Birgitta
APPLICANT: Alitalo, Kari
APPLICANT: Pajusola, Katri
TITLE OF INVENTION: VASCULAR ENDOTHELIAL
TITLE OF INVENTION: DIA CODING THEREFOR
NUMBER OF SEQUENCES: 17
                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/569,063C FILING DATE: 06-DEC-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
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NAME: EVANS, Joseph D
REGISTRATION NUMBER: 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 01-MAR-1995
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STREET:
CITY: W
                                                                                                                                                                                                                                                                                    121 QCECRPKKK 129
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CITY: W
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                               ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                 MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIQYPSSQLGEMSLEEHS 120
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5. 5607918
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amino acid
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Washington
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              1200 G Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      s: single
linear
             Evenson, McKeown, Edwards & Lenahan
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 628-8800
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Pred. No. 5.7e-65;
4; Mismatches 10
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                                                                                             GROWTH FACTOR-B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 133;
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RESULT 13
US-08-609-443B-2
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                     GENERAL
                                                                                                                                                                                                                                                                             APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Bird
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Kati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HYPOTHETICAL: NO
ORIGINAL SOURCE:
TISSUE TYPE: mouse embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Evans, Joseph D
REGISTION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 41:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: Evans, Joseph D
              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.
CURRENT APPLICATION DATA:
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CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                  TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 57
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CLASSIFICATION: 435
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                              COUNTRY:
                                                                                                                                                                                 ADDRESSEE: Evenson, McKeown, STREET: 1200 G Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
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APPLICATION NUMBER:
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89; Conserva
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91.8%;
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US/08/609,443B
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Pred. No. 1.4e-50;
3; Mismatches 5;
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Best Local Similarity
Matches 89; Conserv
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APPLICANT: OLOFSSON, Bigitta
APPLICANT: ALITALO, Karri
APPLICANT: PAJUSOLA, Karri
APPLICANT: PAJUSOLA, Katri
TITLE OF INVENTION: VASCULAR EN
TITLE OF INVENTION: DNA CODING
NUMBER OF SEQUENCES: 23
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                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/569,063C
FILING DATE: 06-DEC-1995
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FILING DATE: 06-DEC-1995
ATTORNBY/AGENT INFORMATION:
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TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER:
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PRIOR APPLICATION DATA: APPLICATION NUMBER:
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REGISTRATION NUMBER: 26,269
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91.8%;
                                                                                                                                                                                                                                                                                        VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND DNA CODING THEREFOR 23
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 US 08/469,427
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Pred. No. 1.4e-50;
""matches 5;
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Best Local Similarity
                                                                                                                                                                                          ZIP: 07065-0900
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Microsoft Word 6
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/586,039)
FILING DATE: 16-JAN-1996
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
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HYPOTHETICAL: NO
ORIGINAL SOURCE:
TISSUE TYPE: mou
                                                   ATTORNEY/AGENT INFORMATION:
NAME: Hand, J. Mark
                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Bayne, Marvin L. APPLICANT: Thomas Jr., Kenno
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NAME: EVANS, Joseph D
                             REGISTRATION NUMBER: 36,545
REFERENCE/DOCKET NUMBER: 18 LECOMMUNICATION INFORMATION:
                                                                                      APPLICATION NUMBER: 07/676,436 FILING DATE: 28-MAR-1991
                                                                                                                        APPLICATION NUMBER: 08/1 FILING DATE: 20-SEP-1993
                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
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126 E. Lincoln Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Thomas Jr., Kenneth A.

VASCULAR ENDOTHELIAL CELL GROWTH
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91.8%;
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Pred. No. 1.4e-50;
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US-08-586-039B-31
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Best Local
                                                                                TELEFAX: (908) 594-47
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                      APPLICATION NUMBER: 08/124
FILING DATE: 20-SEP-1993
APPLICATION NUMBER: 07/676
FILING DATE: 28-MAR-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (908) 594-3905
TELEFAX: (908) 594-4720
INFORMATION FOR SEQ ID NO: 33
SEQUENCE CHARACTERISTICS:
LENGTH: 146 amino acids
                                                                                                                                                                                                                                                                          CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Microsoft Word 6
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                              TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Bayne, Marvin L.

APPLICANT: Thomas Jr., Kenneth A.
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MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        132 KK--DRTKPE 139
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                            TYPE: amino acids
                                                                                                                                             NAME: Hand, J. Mark
REGISTRATION NUMBER: 36,545
REFERENCE/DOCKET NUMBER: 18
                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 07065-0900
                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
               STRANDEDNESS:
                                                                                                             TELEPHONE:
                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
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                                                                                                                                                                                                           UMBER: 07/676,436
28-MAR-1991
                                                                                                                                                                                                                                                                                                           16-JAN-1996
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                                                                                                               594-3905
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                                                                                                                                                                                                                                                            08/124,259
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US-08-586-039B-35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 35, Application US/08586039B
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Best Local Similarity
Matches 57; Conserv
                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 08/124,259
FILING DATE: 20-SEP-1993
APPLICATION NUMBER: 07/676,436
FILING DATE: 28-MAR-1991
ATTORNEY/ACENT INFORMATION:
NAME: Hand, J. Mark
REGISTRATION NUMBER: 36,545
REFERENCE/DOCKET NUMBER: 18361DA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                   TELEFAX: (908) 594-47 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Microsoft Word 6
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: (908) 594-3905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Bayne, Marvin L.
APPLICANT: Thomas Jr., Kenneth A.
                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Rahway
STATE: New Jersey
COUNTRY: USA
ZIP: 07065-0900
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE: 16-JAN CLASSIFICATION:
                                                                                                                                           TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
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                    Local Similarity
nes 57; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET:
                                                                                                                                                                                                LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E: Merck & Co., Inc.
126 E. Lincoln Avenue
                                                                                                                                                                                            214 amino acids
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                    Conservative
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                  37.5%; Score 269.5; DB 4; 43.8%; Pred. No. 3.3e-24; tive 21; Mismatches 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VASCULAR ENDOTHELIAL CELL GROWTH FACTOR C
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Pred. No. 2.8e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             47;
                                                    Length 214;
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FILING DATE: 04-AUG-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 369,424
FILING DATE: 21-JUN-1989
FILING DATE: 12-MAY-1989
SEQ ID NO:3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FRESULT 18
5332671
; PATENT NO. 5332671
; APPLICANT: FERRARA, NAPOLEONE; LEUNG, DAVID W.H.
; APPLICANT: FERRARA, NAPOLEONE; LEUNG, DAVID W.H.
; TITLE OF INVENTION: PRODUCTION OF VASCULAR ENDOTHELIAL CELL
; GROWTH FACTOR AND DNA ENCODING SAME
; NUMBER OF SEQUENCES: 15
; CURRENT APPLICATION DATA:
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US-08-569-063C-20
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Best Local Similarity
Matches 55; Conserv
                                                                                                                                                                                                                                                                                                                                          Sequence 20, Application US/08569063C Patent No. 5928939
                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Birgitta
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Katri
                             ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                         NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                               TITLE OF INVENTION:
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COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                      COUNTRY: U
ZIP: 20005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         68 LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
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                                                                                                            STATE:
                                                                                                                                             STREET:
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                                                                                                                                                            ADDRESSEE:
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                                                                                                                       Washington
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1200 G Street,
                                                                                       USA
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45.18;
                                                                                                                                                                                                VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND DNA CODING THEREFOR 23
                                                                                                                                          McKeown,
et, N.W.,
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Pred. No. 6.4e-24;
2; Mismatches 42;
                                                                                                                                           Edwards & Lenahan, P.L.L.C Suite 700
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PCT-US96-09001-10
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO: 20:
SEQUENCE CHARACTERISTICS:
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NAME: EVANS, JOSEPH D

REGISTRATION NUMBER: 26,269

REFERENCE/DOCKET NUMBER: 1064

TELECOMMUNICATION INFORMATION:

TELEPHONE: (202) 628-8800
                                                                                                                                                   SOFTWARE: WORD PERFECT 5.1 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 INC
                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: HU, ET AL.
TITLE OF INVENTION: Human Vascular EndothelialGrowth Factor 2
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 06-JUN-
PRIOR APPLICATION DATA:
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FILING DATE: 6 JUN 3.7
APPLICATION NUMBER: 08/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       127 KKKDSAVKPD 136
                                           APPLICATION NUMBER: 08
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                                                                                                    CLASSIFICATION:
                                                                                                                 FILING DATE:
                                                                                                                                                                                     OPERATING SYSTEM:
                                                                                                                                                                                                           COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12 LALLLYLHHAKWSQAAPTTEGEQKSHEVIKFMDVYQRSYCRPIETLVDIFQEYPDEIEYI 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 01 FILING DATE: 01-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 01 FILING DATE: 06-JUN-1995
                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         72 EKPSCVPLMRCAGCCNDEALECVPTSESNITMQIMRIKPHQSQHIGEMSFLQHSRCECRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         68 LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
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: NEW JERSEY
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                                                                                                                                                                                                                                                                                                                         E: CARELLA, BYRNE,
E: CECCHI, STEWART
6 BECKER FARM ROAD
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42.3%; Pred. No. 1.1e-23;
htive 23; Mismatches 47;
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                            08/207,550
                                                               08/465,968
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Patent No. 6022541
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                                                                TELEPHONE: (978) 525-: INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 201-994-1744
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 231 AMINO ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: David Prashker, Esq.
REGISTRATION NUMBER: 29,693
REFERENCE/DOCKET NUMBER: BI:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                     SOFTWARE: WordPerfect version 5.1 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                              SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 201-994-1700
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                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE: March CLASSIFICATION: 424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12 LALLLYLHHAKWSQAAPMAEGGGQNHE--VVKFMDVYQRSYCHPIETLVDIFQEYPDEIE 69
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
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nes 54; Conserv
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TOPOLOGY: LINEAR
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REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 325800-288
                              LENGTH:
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Magnolia
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            amino acid
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                              147 amino acids
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                                                                                                                                                                                                                                                                                            IBM PS/1
                                                                                  (978) 525-3794
                                                                                                                                                                                                                                                                                                                                                                                                                                 David
                                                                                                                                                                                                    March 3, 1997
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Harold F
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43.5%;
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                                                                                                                                                                                                                                                                          MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Immunological preparation for concurrent specific binding to spatially exposed regions of vascular permeability factor bound in vivo to a tumor associated blo vessel
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Pred. No. 1.4e-23;
2; Mismatches 41
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; TYPE: PRT
; ORGANISM: HOMO Sapiens
US-09-392-932-1
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                                                                                                                                          Sequence 2, Apprint No. 602047
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Best Local :
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Best Local Similarity
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                 GENERAL INFORMATION:
APPLICANT: Keyt, Bruce A.
APPLICANT: Nguyen, Francis H.
APPLICANT: Ferrara, Napoleone
TITLE OF INVENTION: Variants of Vascular Endothelial Cell
TITLE OF INVENTION: Growth Factor, Their Uses, and Processes for their
TITLE OF INVENTION: Production
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/392,932
CURRENT FILING DATE: 1999-09-09
EARLIER APPLICATION NUMBER: 60/099,694
EARLIER FILING DATE: 1998-09-09
NUMBER OF SEQ ID NOS: 11
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Schreiner, George F.
APPLICANT: Johnson, Richard J.
TITLE OF INVENTION: METHODS OF TREATING HYPERTENSION AND
TITLE OF INVENTION: COMPOSITIONS FOR USE THEREIN
FILE REFERENCE: SCIOS.002A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               132
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                54;
OF SEQUENCES:
                                                                                                                                                                 Application US/08567200A
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   Production
42
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Pred. No. 9.2e-24;
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US-08-567-200A-2
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US-08-807-992B-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                APPLICANT:
                                        ZIP: 01930
COMPUTER READABLE FORM:
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ADDRESSEE: Flehr, Hohbach, Test,
STREET: Four Embarcadero Center,
CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 191 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 781-1989
TELEFAX: (415) 398-3249
TELEX: 910 277299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                      STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                             132 PKK 134
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67 QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 05-DEC
COMPUTER: IBM PS/1
OPERATING SYSTEM:
                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72
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                                                                                                                                                         ADDRESSEE:
                               MEDIUM TYPE: Diskette, 3.50 inch, 1.40 Mb storage
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                                                                                                                      T: P.O. Bo
Magnolia
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Dreger, Walter H.

24,190
                                                                                                      Massachusetts
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                                                                                                                                                                                                                                                                                  Dvorak,
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                                                                                                                                                           David Prashker,
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                                                                                                                                           Box 5387
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43.9%;
                                                                                                                                                                                                                                                                                  Harold
                                                                                                                                                                                                                                                                                                 Donald
 MS DOS
                                                                                                                                                                                                           Immunological preparation for concurrent specific binding to spatially exposed regions of vascular permeability factor bound in-vivo to a tumor associated blo vessel
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Suite 3400
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CURRENT APPLICATION DATA:

WordPerfect version 5.1

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US-08-691-794-2
; Sequence 2, Applica
; Patent No. 6057428
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                                         CURRENT APPLICATION NUMBER: US/08/091,...
FILING DATE: 02-AUG-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 60/002,827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: David prasiker, Esq.
REGISTRATION NUMBER: 29,693
REFERENCE/DOCKET NUMBER: BI:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION TOPOLOGY
                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Variants of Vascular Endothelial Cell
TITLE OF INVENTION: Growth Factor, Their Uses, and Processes for their
TITLE OF INVENTION: Production
NUMBER OF SEQUENCES: 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS
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                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                     APPLICATION NUMBER: US 60 FILLING DATE: 25-AUG-1995
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                                                                                                                                                                                                                                                                                                 COUNTRY:
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STRANDEDNESS: si
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                                                                                                                                                                                                                                                                                                                                    San Francisco
                                                                                                                                                                                                                                                                                                                  California
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Cunningham, Brian C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Keyt, Bruce A.
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us 08/567,200
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Suite 3400
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US-08-795-430-56
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            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/601,132
FILING DATE: 14-FEB-1996
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOTTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 57
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Joukov, Vladimir TITLE OF INVENTION: Vascular TITLE OF INVENTION: Protein
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TELEFAX: (415) 398-3249
                                                                                                                                       PRIOR APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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                                                                                              APPLICATION NUMBER: 08/671,573 FILING DATE: 28-JUN-1996
                                                                                                                                                         APPLICATION NUMBER: PCT/F196/00427 FILING DATE: 01-AUG-1996
                                                                                                                                                                                                                     CLASSIFICATION: 435
                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 6300 :
CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72 IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
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REGISTRATION NUMBER: 24,190
APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                   60606-6402
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Protein and Gene, Mutants Thereof, and Uses Thereof
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  08/585,895
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PRIOR APPLICATION DATA: APPLICATION NUMBER:

08/510,133

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APPLICANT: Schreiner,
APPLICANT: Schreiner,
APPLICANT: Johnson, Richard J.
TITLE OF INVENTION: METHODS OF TREATING HYPERTENSION AND
TITLE OF INVENTION: COMPOSITIONS FOR USE THEREIN
FILE REFERENCE: SCIOS.002A
CURRENT APPLICATION NUMBER: US/09/392,932
CURRENT FILING DATE: 1999-09-09
                                                                                                                                                                                                                                                                                  SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 3
                                                                                                             Query Match
Best Local Similarity
Matches 54; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 3, Application US/09392932 Patent No. 6352975
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Best Local
                                                                                                                                                                                                                                                                                                                     EARLIER APPLICATION NUMBER: 60/099,694 EARLIER FILING DATE: 1998-09-09 NUMBER OF SEQ ID NOS: 11
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                  LENGTH: 191
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REFERENCE/DOCKET NUMBER: 28
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEPAX: 312/474-0448
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 01-AUG-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 132 PKK 134
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 67
                                                                        10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           67 QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: not
                                   12 LALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72 IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
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QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             not relevant
                                                                                                         36.7%; Score 264; DB 4; Length 191; 43.9%; Pred. No. 1.3e-23; Ative 21; Mismatches 44; Indels
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43.9%; Pred. No. 1.3e-23;
7ative 21; Mismatches 44
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RESULT 29
5240848-0. 5240848
; Patent NO. 5240848
; Patent OF INVENTION: DAA SEQUENCES ENCODING HUMAN VASCULAR
; PERMEABILITY FACTOR HAVING 189 AMINO ACIDS
; NUMBER OF SEQUENCES: 11
; CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 28
532671-4
532671-4
; Patent No. 5332671
; APPLICANT: FERRARA, NAPOLEONE; LEUNG, DAVID W.H.
; TITLE OF INVENTION: PRODUCTION OF VASCULAR ENDOTHELIAL CELL
; GROWTH FACTOR AND DNA ENCODING SAME
; NUMBER OF SEQUENCES: 15
; CURRENT APPLICATION DATA:
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                                                                                                                                                         Query Match
Best Local (
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FILING DATE: 04-AUG-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 359,424
FILING DATE: 21-JUN-1989
APPLICATION NUMBER: 351,117
FILING DATE: 12-MAY-1989
                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/07/
FILING DATE: 10-JUL-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 274,061
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67 QLVPSCYTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
                                                          12 LALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY 71
                                                                                                 10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
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                                                                                                                                     l Similarity 43.9
54; Conservative
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43.9%;
                                                                                                                                 36.7%; Score 264; DB 6; 1
43.9%; Pred. No. 1.5e-23;
tive 21; Mismatches 44;
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Pred. No. 1.3e-23;
Pred. No. 44
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US-08-586-039B-49
; Sequence 49, Application US/08586039B
; Patent No. 6140073
; GENERAL INFORMATION:
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                                                                                RESULT 31
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Best Local Similarity
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Patent No. 6022541
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INFORMATION FOR SEQ ID NO:
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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NAME: David Prashker, Esq.
REGISTRATION NUMBER: 29,693
REFERENCE/DOCKET NUMBER: BI
TELECOMMUNICATION INFORMATION:
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CURRENT APPLICATION DATA:
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LENGTH: 215 amino acids
APPLICANT:
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STRANDEDNESS: si
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                                                                                                                                PKK 134
                                                                                                                                                                                                                                                           LALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY 71
                                                                                                                                                                                                                           QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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P.O. Box 5387
Bayne, Marvin L.
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Harold
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RESULT 32
5240848-7
5240848-7
; Patent No. 5240848
; PATENT OF INVENTION: DNA SEQUENCES ENCODING HUMAN VASCULAR
; PERMEABILITY FACTOR HAVING 189 AMINO ACIDS
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                SEQ ID
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Best Local S
Matches 54
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PRIOR APPLICATION DATA:

PRIOR APPLICATION NUMBER: 08/124,259

FILLING DATE: 20-SEP-1993

APPLICATION NUMBER: 07/676,436

FILING DATE: 28-MAR-1991

ATTORNEY/AGENT INFORMATION:

NAME: Hand, J. Mark

REGISTRATION NUMBER: 36,545

REFERENCE/DOCKET NUMBER: 18361DA

TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (908) 594-47 INFORMATION FOR SEQ ID NO:
                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 274,061
FILING DATE: 21-NOV-1988
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/9
                                                                                                                        NUMBER OF SEQUENCES: 11 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 215 amino acids
TYPE: amino acid
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                                                                                    APPLICATION NUMBER: US/
FILING DATE: 10-JUL-1989
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 07065-0900
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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                  NO:7:
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215
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36.7%; Score 264; DB 4; 43.9%; Pred. No. 1.5e-23;
                                                                                                       US/07/337,037
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                                                                               US-08-999-811-7
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                Query Match
Best Local :
                                                                                                                                                                         TELEFAX: (202)371-2540
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/
FILING DATE: 8-MAR-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
FILING DATE: 06-JUN-1995
ATTORNEY_AGENT INFORMATION:
NAME: MARKOWICZ, KAREN_R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                        TELEPHONE: (202)371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: HU, JING-SHAN
APPLICANT: ROSEN, CRAIG A.
APPLICANT: CAO, LIANG
TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           132 PKK 134
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CITY: WASHINGTON
                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 36,351
REFERENCE/DOCKET NUMBER: 1488.1000004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72 IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
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                                                                                                               TOPOLOGY: no
                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QLVPSCYTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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43.9%;
              36.7%; Score 264; DB 2; 43.9%; Pred. No. 1.6e-23;
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                               Length 232;
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; TYPE: PRT; ORGANISM: Homo sapiens US-08-824-996-9
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US-08-807-992B-4
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LENGTH: 232
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EARLIER FILING DATE: 1994-03-08
NUMBER OF SEO ID NOS: 9
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/08/824,996B CURRENT FILING DATE: 1997-03-27
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APPLICANT: Cao, Liang
TITLE OF INVENTION: Polynucel
TITLE OF INVENTION: Factor 2
                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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                                                                                                                                           APPLICANT: Senger, I
APPLICANT: DVOTAK, I
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                              NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72 IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
COUNTRY: U
                                  STATE:
                                                                         STREET:
                                                                                           ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                             PKK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity
54; Conserv
                                                    Magnolia
                                Massachusetts
                                                                         P.O.
                 USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                         David
                                                                       Box 5387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polynucelotides Encoding Vascular Endothelial Growth
                                                                                                                                                                                                                       Donald R
Harold F
                                                                                         Prashker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36.7%; Score 264; DB 2;
43.9%; Pred. No. 1.6e-23;
tive 21; Mismatches 44
                                                                                                                              vessel
                                                                                                                                                               Immunological preparation for concurrent specific binding to spatially exposed regions of vascular permeability factor bound in-vivo to a tumor associated blo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2; Length 232;
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SEQUENCE CHARACTERISTICS:
LENGTH: 232 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
APPLICANT:
                                                                                                  SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/042,105 FILING DATE: HEREWITH CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: David Prashker, Esq.
REGISTRATION NUMBER: 29,693
REFERENCE/DOCKET NUMBER: BIS-033
TELECOMMUNICATION INFORMATION:
                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: (
FILING DATE: 8-MAR-19
                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      126
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                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                    ADDRESSEE: STEKNE, NACCESTREET: 1100 NEW YORK AVENUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67 QLYPSCYTYQRCGGCCPDDGLECYPTGQHQYRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Y Match 36.7%;
Local Similarity 43.9%;
APPLICATION NUMBER:
                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72 IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
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FILING DATE: March 3, 1997
CLASSIFICATION: 424
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OPERATING SYSTEM:
                                                                                                                                                                                                                                                             ZIP: 20005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
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TOPOLOGY: li
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION:
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                                                                                                                                                                                                                                                                                                                  WASHINGTON
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                                                                                                                                                                                                                                                                                                                                                                                                                    ROSEN, CRAIG A.
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                                                   8-MAR-1994
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US 08/465,968
                                                                   us 08/207,550
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RESULT 37

5219739-22
; Patent No. 5219739
; APPLICANT: TISCHEE, EDMUND G.; ABRAHAM, JUDITH A.; FIDDES,
; JOHN C.; MITCHELL, RICHARD L.
; TITLE OF INVENTION: DNA SEQUENCES ENCODING BYEGF120 AND
; HVEGF 121 AND METHODS FOR THE PRODUCTION OF BOVINE AND HUMAN
; VAASCULAR ENDOTHELIAL CELL GROWTH FACTORS, BVEGF120 AND HVEGF
NUMBER OF SEQUENCES: 40
; CURRENT APPLICATION DATE
; CURRENT APPLICATION DATE
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Matches
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Best Local (
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INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 232 amino acids
                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/07/559,041
FILING DATE: 27-JUL-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 450,883
FILING DATE: 14-DEC-1989
APPLICATION NUMBER: 387,545
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REFERENCE/DOCKET NUMBER: 14
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)371-2600
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NAME: ERIC K. STEFFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
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  72
                                       67
                                                                                                                    10 LAALLQLAPAQAPVSQPDAPG----HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
                                                                                                                                                                                                                                                                                                                     FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 43.9 les 54; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: (CLASSIFICATION:
                                                                                                                                                                                                                                                                                  LENGTH: 215
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IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMAILPHQGQHIGEMSFLQHNKCECR 131
                      QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL-MIRYPSSQLGEMSLEEHSQCECR 125
                                                                            LALLLYLHHAKTSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
                                                                                                                                                       ch 36.6%; score 263; DB 6 l Similarity 43.1%; Pred. No. 2e-23; 53; Conservative 22; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36.7%; Score 264; DB 3; 43.9%; Pred. No. 1.6e-23;
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                                                                                                                                                                                               DB 6; Length 215;
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Best Local
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 6
FILING DATE: 25-AUG-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
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                                                                                                                                                                                                                                                                                                       Local
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TOPOLOGY: un
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                                          81 CCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/567,200 FILING DATE: 05-DEC-1995
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60 CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
                                                                                                                                                                                                       21 APVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGG 80
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH:
                                                                                                                                       1 APMAEGGGQNH-HEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEYIFKPSCVPLMRCGG
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                                                                                                                                                                                                                                                                                                    h 35.7%;
Similarity 44.0%;
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Four Embarcadero Center,
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Cunningham, Brian C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US 60/002,827
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                                                                                                                                                                                                                                                                    Score 257; DB 3; I
Pred. No. 4.2e-23;
1; Mismatches 38;
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Suite 3400
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5219739-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
;Patent No. 5219739
; APPLICANT: TISCHER, EDMUND G.;ABRAHAM, JUDITH A.;FIDDES,
                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                  5194596-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C.; MITCHELL, RICHARD L.
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent No. 5194596 Patent No. 5194596; Patent No. 5194596; Patent No. 5194596 Patent No. 5194596 Patent No. 5194596
                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO:19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 11
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 11
LENGTH: 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
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Patent No. 6352975
                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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CURRENT APPLICATION NUMBER: US/09/392,932
CURRENT FILING DATE: 1999-09-09
EARLIER APPLICATION NUMBER: 60/099,694
EARLIER FILING DATE: 1998-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Schreiner, George F.
APPLICANT: Johnson, Richard J.
TITLE OF INVENTION: METHODS OF TREATING HYPERTENSION AND
TITLE OF INVENTION: COMPOSITIONS FOR USE THEREIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 14-DEC-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 387,545
FILING DATE: 27-JUL-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA: APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 32
                                                                                                                       60
                                                                                                                                                            81 CCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
                                                                                                                                                                                                                                      21 APVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGG 80
                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 121
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                                                                                                                                                                                                   1 APMAEGGGQNH-HEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEYIFKPSCVPLMRCGG
                                                                                                                     CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
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                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRODUCTION OF VASCULAR ENDOTHELIAL CELL
                                                                                                                                                                                                                                                                                                  35.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35.7%; Score 257; DB 4; Length 110; 44.0%; Pred. No. 4.3e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US/07/450,883
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                                                                                                                                                                                                                                                                             Score 257; DB 6; I
Pred. No. 4.8e-23;
1; Mismatches 38;
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                                                                                                                                                                                                                                                                                                                   Length 121;
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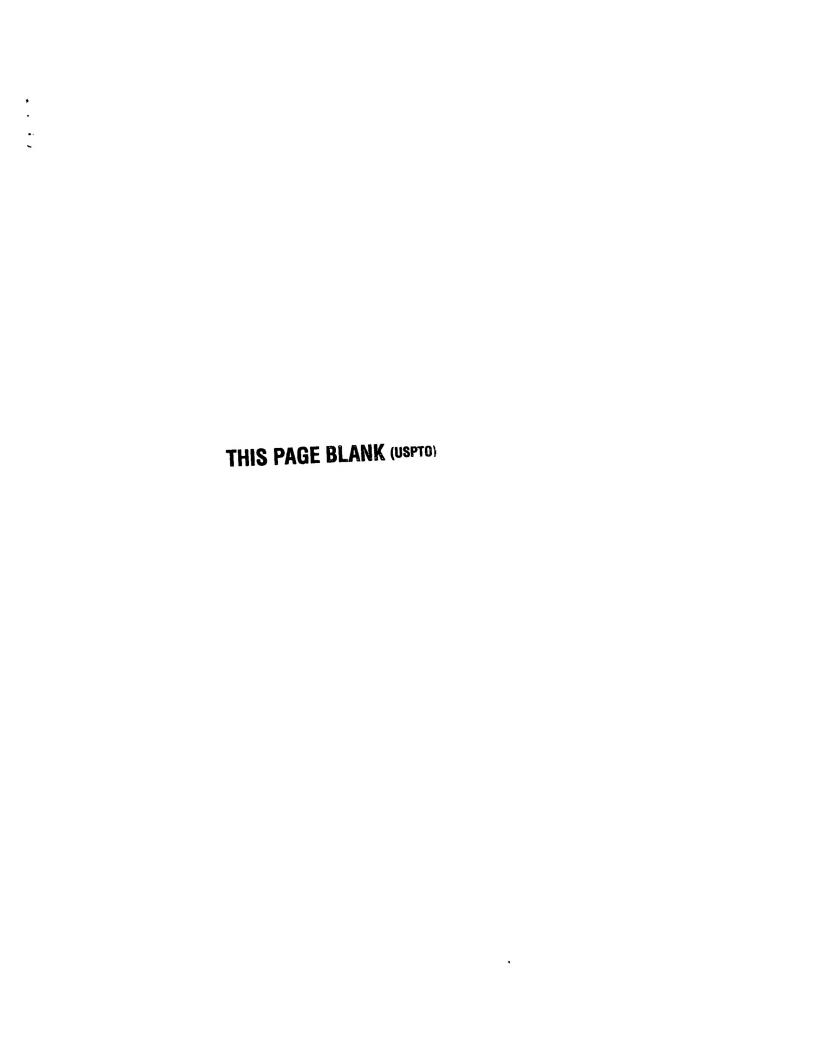
TITLE OF INVENTION: DNA SEQUENCES ENCODING BYEGF120 AND ; PURCEF 121 AND METHODS FOR THE PRODUCTION OF BOVINE AND HUMAN : VAASCULAR ENDOTHELIAL CELL GROWTH FACTORS, BYEGF120 AND HYEGF : NUMBER OF SEQUENCES: 40

CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/08784551C Patent No. 6013780
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Best Local Similarity
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FILING DATE: 27-JUL-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 450,883
FILING DATE: 14-DEC-1989
APPLICATION NUMBER: 387,545
FILING DATE: 27-JUL-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
INFORMATION FOR SEQ
                                                                                                                                                                                                                                                SOFTWARE: FASTSEN: IBM P.C. DOS 5.0 SOFTWARE: FASTSEQ for Windows 2.0 CURRENT APPLICATION DATA: APPLICATION UNMBER: US/08/784 SELOFILING DATE.
                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: storage
                                                   TELEPHONE: (202) 463-7700
                                                                                                                                                                                                          FILING DATE: January 21, CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: ANGIOGENIC FACTOR AND USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                         NAME: Cohen, Herbert
REGISTRATION NUMBER: 25,109
REFERENCE/DOCKET NUMBER: 02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 900 17th St
STREET: Suite 1000
                                                                                                                                                                      APPLICATION NUMBER: FILING DATE:
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                     TELEX:
                                     TELEFAX:
                                                                                                                                                                                                                                                                                                                                             COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Washington, D.C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
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Eli Keshet
Israel Vlodavsky
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                                   (202) 463-6915
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                                                                                             0274.005/P003
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APPLICANT: Schreiner, George F.
APPLICANT: Johnson, Richard J.
TITLE OF INVENTION: METHODS OF TREATING HYPERTENSION AND
TITLE OF INVENTION: METHODS OF TREATING HYPERTENSION FILE REFERENCE: SCIOS.002A
CURRENT APPLICATION NUMBER: US/09/392,932
CURRENT FILING DATE: 1999-09-09
EARLIER APPLICATION NUMBER: 60/099,694
FEARLIER FILING DATE: 1998-09-09
NUMBER OF SEQ ID NOS: 11
SOFTWARE: FASTSEQ FOR Windows Version 4.0
SEQ ID NO 2
LENGTH: 145
TYPE: PRT
ORGANISM: Homo Sapiens
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5194596-18
;Patent No.
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; SEQ
                                                                                                                                                                                ; APPLICANT: TISCHER, EDMUND G.; ABRAHAM, JUDITH A.; FIDDES, JOHN; C.; MITCHELL, RICHARD L.
; TITLE OF INVENTION: PRODUCTION OF VASCULAR ENDOTHELIAL CELL
                                                                                                                                                                 GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 48; Conserv
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Patent No. 6352975
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Best Local Similarity
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                                                                             CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/
FILING DATE: 14-DEC-1989
                                                        PRIOR APPLICATION DATA:
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LENGTH: 145 amino acid
                                                                                                                                            NUMBER OF SEQUENCES: 32
               APPLICATION NUMBER: 387,545
FILING DATE: 27-JUL-1989
                                                                                                                                                                                                                                                                                                                                                  60 CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
                                                                                                                                                                                                                                                                                                                                                                                           81 CCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
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STRANDEDNESS: sir
TOPOLOGY: linear
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  NO:18
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44.0%; Pred. No. 6.1e-23;
ative 21; Mismatches 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35.7%; Score 257; DB 4; 44.0%; Pred. No. 6.1e-23;
                                                                                                   US/07/450,883
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5194596-18

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RESULT 45
5219739-19
; Patent NO. 5219739
; Patent NO. 5219739
; APPLICANT: TISCHER, EDMUND G.; ABRAHAM, JUDITH A.; FIDDES,
; JOHN C.; MITCHELL, RICHARD L.
; TITLE OF INVENTION: DNA SEQUENCES ENCODING BYEGF120 AND
; HYEGF 121 AND METHODS FOR THE PRODUCTION OF BOVINE AND HUMAN
; VAASCULAR ENDOTHELIAL CELL GROWTH FACTORS, BYEGF120 AND HYEGF121
NUMBER OF SEQUENCES: 40
; CURRENT APPLICATION DATA:
; APPLICATION UNABER: US/07/559,041
FILING DATE: 27-JUL-1990
PRIOR APPLICATION DATA:
; PRIOR APPLICATION DATA:
; PRIOR APPLICATION DATA:
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Search completed: September 10, 2002, 02:50:01 Job time: 3524 sec
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FILING DATE: 14-DEC-1989
APPLICATION NUMBER: 387,545
FILING DATE: 27-JUL-1989
SEQ ID NO:19:
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60 CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
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                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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ORGANISM
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TITLE
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                                                        source
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AF099134
AF099134
AF099134.1 GI:11095133
                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Bovinae; Bos.

1 (bases 1 to 202)

Mandriota, S. J. and Pepper, M. S.

Direct Submission
                                                                                       Submitted (16-OCT-1998) Morphology, CMU, Geneva 4, Switzerland
                                                                                                                                                                                                                                     Bos taurus
                                                                                                                                                                                                                                                        COW.
                                                                   Location/Qualifiers
/organism="Bos taurus"
/db_xref="taxon:9913"
/tissue_type="heart"
                                                                                                            1 rue Michel Servet, 1211
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                                                                                                                                                                                                                                                                                                                                                                    Submitted (23-MAY-1997) Xiaoxu Liu, Kanazawa University School of Medicine, Department of Biochemistry; Takara-machi 13-1, Kanazawa, Ishikawa 920, Japan (E-mall:hyone@med.kanazawa-u.ac.jp, Tel:076-265-2181, Fax:076-234-4226)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Implication In autocrine and paracrine regulation of angiogenesis J. Biol. Chem. 274 (49), 35172-35178 (1999) 20044783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Yonekura,H., Sakurai,S., Liu,X., Migita,H., Wang,H., Yamagishi,S., Nomura,M., Abedin,M.J., Unoki,H., Yamamoto,Y. and Yamamoto,H. Placenta growth factor and vascular endothelial growth factor B and C expression in microvascular endothelial cells and pericytes.
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Bos taurus Heart tissue_lib:Heart cDNA to mRNA.
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    354 c    292 g    173 t
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Submitted (23-MAY-1997) Xiaoxu Liu, Kanazawa University School of Submitted (29-MAY-1997) Xiaoxu Liu, Kanazawa University School of Medicine, Department of Biochemistry; Takara-machi 13-1, Kanazawa Ishikawa 920, Japan (E-mail:hyone@med.kanazawa-u.ac.jp, Tel:076-265-2181, Fax:076-234-4226)
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vascular endothelial growth factor B167
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Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
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/db_xref="taxon:9913"
/tissue_type="Heart"
/tissue_lib="Heart"
96    158
96    662
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                                                                                                                                                                                                                                         /translation="mspllrrillavilqlapaqapvsqpdapghqkkvvswidvyar
atcqprevvvplnmelmgtvakqlvpscvtvqrcggccpddglecvptgqhqvrmqil
miqypssqlgemsleehsqcecrpkkresavkpdsprplcprcpqrqrpdprtchcr
                                                                                                                                                                      /product="vascular endothelial growth factor B167"
368 c 321 g 172 t
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                                                                                                                                                                                                                                                                                               /protein_id="BAA77685.1"
/db_xref="GI:4850310"
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                                                                                 94.78;
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0; Mismatches
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Eriksson, U., Olofsson, B., Alitalo, K.
Vascular endothelial growth factor-B
Patent: US 5840693-A 8 24-NOV-1998;
1 (bases 1 to 565)
Eriksson,U., Olofsson,B., Alitalo,K. and
Vascular endothelial growth factor-B
                             Unclassified
                                               Unknown.
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1 (bases 1 to 565)
Eriksson,U., Olofsson,B., Alitalo,K. and Pajusola,K. Vascular endothelial growth factor-B and DNA coding Patent: US 5607918-A 4 04-MAR-1997;
Location/Qualifiers
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Location/Qualifiers
1. .565
                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Muridae; Muridae; I (bases 1 to 567)
Townson, S., Lagercrantz, J., Grimmond, S., Silins, G., Nordenskjold, M., Weber, G. and Hayward, N.
Characterization of the murine VEGF-related factor gene Biochem. Biophys. Res. Commun. 220 (3), 922-928 (1996)
                       Submitted (21-DEC-1995) Nicholas K. Hayward, Joint Experimental Oncology Unit, Queensland Institute of Medical Research, Bancro Centre, 300 Herston Rd, Herston, Brisbane, Queensland, 4029,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unknown
             Australia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                               l (bases 1 to 624)
Eriksson,U., Olofsson,B., Alitalo,K. and Pajusola,K.
Vascular endothelial growth factor-B
Patent: US 5840693-A 12 24-NOV-1998;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                           AR060516
Sequence 12 from patent
AR060516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               l Similarity
28; Conserv
house mouse
                            U48800.1 GI:1234824
                                       (VEGF-B) mRNA,
U48800
                                                           Mus musculus vascular endothelial
                                                                                                                                                                                                                                                                                                                      Unclassified.
                                                                                                                                                                                                                                                                                                                                  Unknown
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/db_xref="GI:1314336"
/tdb_xref="GI:1314336"
/translation="MSPLIRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYAR
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ATQYPSSQLGEMSLEEHSQCECRPKKKESAVKPDSPRILCPPCTQRRQRPDPRTCRCR
                                                                                                                                                                                                                                /organism="unknown"
213 c 173 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="VEGF-related factor isoform"
/product="mvrf167"
179 c 166 g 101 t
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61. .564
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/db_xref="taxon:10090"
/clone="m175-m1"
/tissue_type="whole brain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="mvrf167"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="VEGF-related
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93.3%;
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1 (bases 1 to 795)
20lofsson,B., Pajusola,K., Kaipainen,A., von Euler,G., Joukov,V., Saksela,O., Orpana,A., Pettersson,R.F., Alitalo,K. and Eriksson, Saksela,O., Orpana,A., Pettersson,R.F., Alitalo,K. and Eriksson, Vascular endothelial growth factor B, a novel growth factor for
                                                                          l (bases 1 to 886)
Eriksson, U., Olofsson, B., Alitalo, K.
Vascular endothelial growth factor-B
Patent: US 5840693-A 1 24-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 28; Conserv
                                                                                                                                                                                                                                                           Sequence 1 from AR060511
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S-171 77, Sweden
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission Submitted (08-FEB-1996) Ulf Eriksson, Ludwig Institute for Cancer
                                                                                                                                                                              Unknown
                                                                                                                                                                                                  Unknown.
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ATCQPREVVVPLSMELMGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL
MIQYPSSQLGEMSLEEHSQCECRPKKKESAVKPDSPRILCPPCTQRRQRPDPRTCRCR
/organism="unknown"
261 c 226 g
                                                        Location/Qualifiers
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/protein_id="AAB06273.1"
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95. .661
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158. .658
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/db_xref="taxon:10090"
/tissue_type="heart"
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linked heterodimers with VEGF; binds heparin"
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l. .795
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                                          .886
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Mus musculus vascular endothelial growth
precursor, mRNA, complete cds.
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136625
                                                                Genomic organization of the mouse and human genes for vascular endothelial growth factor B (VEGF-B) and characterization of a second splice isoform J. Biol. Chem. 271 (32), 19310-19317 (1996) 96325041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eriksson, U., Olofsson, B., Alitalo, K. and Vascular endothelial growth factor-B and Patent: US 5607918-A 1 04-MAR-1997;
                                                                                                                                                                                                         Olofsson, B., Pajusola, K., Kaipainen, A., von Euler, G., Joukov, V., Saksela, O., Orpana, A., Pettersson, R.F., Alitalo, K. and Eriksson, Vascular, endothelial growth factor B, a novel growth factor for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . Similarity
28; Conserv
              Submitted
                            Direct Submission
                                        Eriksson, U.,
                                                                                                                                Eriksson, U.
                                                                                                                                           Olofsson, B., Pajusola, K., von Euler, G.,
                                                                                                                                                                                   Proc.
                                                                                                                                                                                              endothelial cells
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                       Mus musculus
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1 from patent US 5607918.
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261 c 226 g
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(27-MAR-1996) Ulf Eriksson, Ludwig Institute for Cancer Karolinska Institutet, Doktorsringen 12A, Stockholm S-171
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                                        Alitalo, K.,
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                                        Olofsson, B. and Pajusola, K.
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                                                                                                                                                                                                                                                                                                 Australia
On Dec 4,
                                                                                                                                                                                                                                                                                                                                     Submitted (21-DEC-1995) Nicholas K. Hayward, Joint Experimental Oncology Unit, Queensland Institute of Medical Research, Bancro Centre, 300 Herston Rd, Herston, Brisbane, Queensland, 4029,
                                                                                                                                                                                                                                                                                                                                                                                                   Hayward, N.K.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nordenskjold,M., Weber,G. and Hayward,N. Characterization of the murine VEGF-related factor gene Biochem. Biophys. Res. Commun. 220 (3), 922-928 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Townson, S., Lagercrantz, J.,
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/protein_id="AAC52823.1"
/protein_id="AAC52823.1"
/db_xref="GI:1488261"
/translation="MSPLLRRLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYAR
ATCQPREVVVPLSMELMGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL
MIQYPSSQLGEMSLEEHSQCCCRPKKKESAVKPDRVAIPHHRPQPRSVPGWDSTPGAS
SPADIIHPTPAGSSARLAPSAVNALTPGPPAAAAADAAASSIAKGGA"
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/product="mvrf186 precursor"
/protein_id="AAC52932.1"
/db_xref="GI:1314334"
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95. .718
                                                                                                                                                                           /clone="m175-m1"
/tissue_type="whole brain"
                                                                                                                                                                                                                                                                                                 1996 this sequence version replaced gi:1314333
                                                              /codon_start=
                                                                              /note="VEGF-related factor"
                                                                                                             /dev_stage="neonatal"
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/db_xref="taxon:10090"
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1. .1236
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/tissue_type="heart"
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                                                                                                                                                                                                                                                                                                         Submitted (22-NOV-2001) Whitehead Institute/MIT Cer
Research, 320 Charles Street, Cambridge, MA 02141,
Research, sere identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
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Birren,B., Linton,L., Nusbaum,C. and Lander,E.
Homo sapiens chromosome 11, clone RP11-783K16
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Anderson, S., Barna, N., Bastien, V., Boguslavkiy, L., B
                                                                                                                                                                                                                                                                         http://ftp.genome.washington.edu/RM/RepeatMasker.html
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Mammalla; Eutherla; Primates; Catarrhini; Hominidae; Homo.
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Center project
Center clone na
                                                               Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                             Center code: WIBR
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                                                                                                                                                                                                                                             -- Genome Center
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Pred. No. 0
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15740 16616; contig of 888 bp.
16617 16716; gap of 100 bp.
16717 17590; contig of 877 bp in
17591 17690; contig of 878 bp in
17691 18640; contig of 950 bp in
18641 18740; gap of 100 bp.
18741 18606; contig of 950 bp in 1.
18741 19606; gap of 100 bp.
19707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads and the order in which they appear is completely arbitrary. Low-pass sequence sampling is useful for identifying clones that may be gene-rich and allows overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completion. In the event that the record is updated, the accession number will
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33 10637: contig of 885 bp

36 10737: gap of 100 bp

38 11596: contig of 859 bp

37 11696: gap of 100 bp

37 11696: contig of 934 bp
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115: contig of 9

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        28437: contig
28537: gap of
29418: contig
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24659: gap of 100 b
25529: contig of 870
25629: gap of 100 b
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51854 52725: contig of 797 bp in length
52726 52825: gap of 100 bp
52826 53690: contig of 872 bp in length
53791 53790: gap of 100 bp
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                                                                                                                                                                                                                                                                                                                                                                                        Submitted (15-MAR-2000) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC); 1-15-1 Kitasato, Sagamihara, Kanagawa 220-8655, Japan (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-42-778-9923, Fax:81-42-778-9924) On Sep 15, 2000 this sequence version replaced gi:8117327.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Publishėd Only in DatāBase (2000) In press 2 (bases 1 to 151747)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P., Fujlyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y.
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Hattori,M., Ishii,K. Toyoda,A., Taylor,T.D., Hon Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Homo sapiens 151,747 genomic DNA of 11q13
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HOMO sapiens DNA, clone:RP11-783K16.
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AP001453.3 GI:10130047
Center project name: HumDraft11
Center clone name: RP11-783K16
Center clone name: RP11-783K16
Sequencing vector: PCR products; 100% of reads
Chemistry: Dye-terminator ET-amersham; 100% of reads
Assembly program: Phrap; version 0,990329
Consensus quality: 136959 bases at least Q40
Consensus quality: 143151 bases at least Q30
Consensus quality: 143151 bases at least Q30
Consensus quality: 146210 bases at least Q30
Insert size: 146147; sum-of-contigs
Quality coverage: 8.32x in Q20 bases; sum-of-contigs
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Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                            Web site: http://hgp.gsc.riken.go.jp/
Contact: hattor1@gsc.riken.go.jp
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66564: gap of 100 bp
67430: contig of 866 bp
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and Sakaki,Y.
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37 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence

is available and the accession number will be

preserved

ij

9003 18333 28760 37432 45167 51838 58018

18232 28659 37331 45066 51737

contig contig contig contig contig

8902 9230 10327 8572 7635 6571 6080 4680

length
length
length
length
length
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length

in

contig

NOTE: This is a 'working draft' sequence.
37 contigs. The true order of the pieces :

It currently consists of

62798
66443
69347
72274
76533
80949
84630
88689

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76533
80848 contig of 4316 bp in length
80949
84529 contig of 3581 bp in length
88630
88588 contig of 3581 bp in length
98424 contig of 3585 bp in length
98428
102160 contig of 4403 bp in length
102261
107715 contig of 3665 bp in length
114136
117720 contig of 3665 bp in length
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117720 contig of 3665 bp in length
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117720 contig of 3665 bp in length
114136
112176 contig of 3665 bp in length
112277
123962 contig of 3665 bp in length
124063
128424 contig of 2756 bp in length
124063
128424 contig of 2756 bp in length
133865
137164 contig of 2756 bp in length
133865
137164 contig of 3302 bp in length
134481
142470 contig of 3702 bp in length
144481
142715 contig of 1312 bp in length
144481
142715 contig of 1312 bp in length
144348
146123
147416 contig of 1432 bp in length
147517
148926 contig of 1432 bp in length
147517
148926 contig of 1410 bp in length
147517
15177 contig of 1410 bp in length
147518 is a 'working draft' sequence. It currently
* consists of 37 contigs. The true order of the pieces
* arbitrary Gaps between the contigs are represented as
* arbitrary caps between the contigs are represented as
* this nearly will be updated with the finished sequence
* till be updated with the finished sequence
* 80849 80948: gap of 100 bp in 80949 80948: gap of 100 bp in 84529: contig of 3581 bp in 84530 84629: gap of 100 bp in 84530 84629: gap of 100 bp in 1 88589 88688: gap of 100 bp 100 b
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28760 37331: contig of 8572 l
37332 37431: gap of 100 bp
37432 45066: contig of 7635 l
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8903 9002: gap of 100 bp
9003 18232: contig of 9230 bp in length
18233 18332: gap of 100 bp
1833 28659: contig of 10327 bp in length
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57917: contig of 6080 k
100 bp
62697: contig of 4680 k
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g of 3545 bp in
100 bp
g of 2804 bp in
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3 of 6571 bp 3
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45166: gap of 51737: contig

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* NOTE: This is a 'working draft' sequence. It currently
* consists of 6 contigs. The true order of the pieces
* is not known and their order in this sequence record is
* arbitrary. Gaps between the contigs are represented as
* runs of N, but the exact sizes of the gaps are unknown.
* This record will be updated with the finished sequence
* as soon as it is available and the accession number will
             precursor, mRNA,
AF032925
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/chromosome="11"
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                                                                                                                                                                                                                                                                                                                                                                                                                     4561: contig of 4561 bp in length 19077: gap of unknown length 30350: contig of 11273 bp in length 44866: gap of unknown length 58909: contig of 14043 bp in length 73424: gap of unknown length 90412: contig of 16988 bp in length 104927: gap of unknown length 130554: contig of 25627 bp in length 145069: gap of unknown length 145069: gap of unknown length 174562: contig of 29493 bp in length 174562: contig of 29493 bp in length
                                                                                                                                                                                                                                                                                                            clone="CIT987SK-1012F4" 29998 c 29519 g 21315 t
              GI:2641621
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                                                                                                     Weil,J., Eschennagen,...
Direct Submission
Submitted (31 AUG-1997) Abteilung Allgemeine Pharmakologie,
Submitted (31 Aug-1997) Abteilung Allgemeine Pharmakologie,
Submitted (31 Aug-1997) Abteilung Allgemeine Pharmakologie,
                                                                                                                                                                                                             Unpublished
                                                                                                                                                                                                                                        Weil, J., Eschenhagen, T., Mittma
Isolation and characterization
factor B (VEGF-B)
                                                                                                                                                                                                                                                                                                                              Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     partial cds
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Rattus norvegicus vascular er
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99 c 104 q 68 +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     placenta, using degenerate oigonucleotides; sequenced
both strands"
/tissue_type="heart"
/note="isolated by P
                                   /organism="Rattus norvegicus"
/db_xref="taxon:10116"
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(VRF) 186 precursor; VEGF-B
/codon_start=2
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/strain="Sprague-Dawley"
/db_xref="taxon:10116"
                                                                                           Location/Qualifiers
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/db_xref="GI:2641622"
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/note="RT-PCR product amplified from total RNA from rat
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93.1%;
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                                                            1 (bases 1 to 591)
Eriksson, U., Olofsson, B., Alitalo, K. and Pajusola, K.
Vascular endothelial growth factor-B and DNA coding therefor
Patent: US 5607918-A 6 04-MAR-1997;
                                                                                                                              Unknown
                                                                                                                                            Unknown.
                                                                                                                                                                                    Sequence 6 from patent US I36627
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Eriksson, U., Olofsson, B., Alitalo, K. and Pajusola, K. Vascular endothelial growth factor B
Patent: US 5840693-A 6 24-NOV-1998;
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/codon_start=2
/product="vascular endothelial growth factor B"
/protein_id="AAB99447.1"
/protein_id="AAB99447.1"
/db_xref="GC:2766602"
/translation="KRKVVSWIDVYARATCQPREVVVPLSMEFMGNVVKQFVPSCVTV
/RCGGCCPDDGLECVPIGOHOVENGILMIQYPSSQLGEMSLEEHSQCECRPKRKESAV
KPDSPRTLCPRCTXRRXRPDPRTCRCRCRCRRRFLHCQGRGLELNPDTC"

KPDSPRTLCPRCTXRXRRPDPRTCRCRCRCRTRRFLHCQGRGLELNPDTC"

126 c 136 g 84 t 2 others
           /organism="unknown"
186 c 174 g
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186 c 174 g
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/note="VEGF-B"
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86.7%;
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93.1%;
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Pred. No. 16;
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                            Submitted (27-OCT-2001) Human Genome Sequencing Center, Depart of Molecular and Human Genetics, Baylor College of Medicine, Baylor Plaza, Houston, TX 77030, USA On Dec 20, 2001 this sequence version replaced gi:17064359.
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Direct Submission
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Assembly program: Phrap; version findPhrapList
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NOTE: This is a 'working draft' sequence. It currently consists of 52 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
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23; Conser
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Gene Collection (MGC), Cancer Genomics Office, Nat
Institute, 31 Center Drive, Room 11A03, Bethesda,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2004 bp mRNA linear F
Homo sapiens, clone IMAGE:3458856, mRNA, partial cds.
BC008593
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: villalon@bcm.tmc.edu.
Villalon, D.K., Luna, R.A., Hale, S.M., Hulyk, S., Lu, X., Garcia,
A.M., Holloway, M., Telford, B, Hodgson, A., Bouck, J., Yu, W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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                                                                                                                                                                                                                                                                                                                                               VSLMPLRLNVDQDALFFLKDFFTSLVAGINPVVPGETSAEARPETRAQPSSPLEGQAE
GVETTGSQEAPGGGHSPSPPDQQPIYFREFRFTSEVPIWLDYHGKHVTMDQVGTFAGL
                                                                                                                                                                                                                                                                                                                                                                                      /product="Unknown (protein for IMAGE:3458856)"
/protein_id="AAH08593 1"
/protein_id="AAH08593 1"
/db_xref="GI:4750327"
/db_xref="GI:4750327"
/t-anslation="YLREVSLVWHLYGGRDFGPHPGHRARTGLSGPRSSPSRCSGPNR
PQNSWRTQGGSGRQHHYLMEIQLSKVSFQHEVYPAEPATGPAAPSQELEERPLSRQVF
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/tissue_type="Cervix, c
/clone_lib="NIH_MGC_12"
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/db_xref="taxon:9606"
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Submitted (06-OCT-1997) Osamu Ohara, Kazusa DNA Research Institute,
Laboratory of DNA Technology; Yana 1532-3, Kisarazu, Chiba
292-0812, Japan (E-mail:cdnainfo@kazusa.or.jp, Tel:+81-438-52-3913,
Fax:+81-438-52-3914)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA Res. 4 (5), 307-313 (1997) 98116655
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1. (bases 1 to 6299)
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                                                                                                                                   VYLREYSLVWHLYGGRDFGPHPGHRARTGLSGPRSSPSRCSGPNRPQNSWRTQGGSGR
QHHYLMEIQLSKYSFQHEYYPAEPATGPAAPSQELEERPLSRQVFIVQELEVRDRLAS
                                                                             DLLELVIKTWKGSTEGKLSQPLFELRCSNNVVHVHSCADSCALLVNLLQYVMSTGDLH
PPPRPPSPTEIAGQKLSESPASLPSCPPVETALINQRDLADALLDTERSLRELAQPSG
GHLPQASPISVYLFPGERSGAPPPSPPVGGPAGSLGSCSEEKEDEREEEGDGDTLDSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /translation="GDRRRAASGGGPGPAVSEMSRWIMPWSNCVKERVCRYLLHHYLG HEFQEHLSLDQLSLDLYKGSVALRDIHLEIWSVNEVLESMESPLELVEGFVGSIEVAV PWAALLTDHGTVRVSCLQTLQFLOFAGEAGAADASQSNASCMTFSLQLAQECLROGLPE PSEPPQPLEGLEMFAQTIETVLRRIKVTFLDTVVRVEHSPGDGERGVAVEVRVQRLEY
                                                          EFCILDAPGLGIPPRDGEPVVTQLHPGPIVVRDGYFSRPIGSTDLLRAPAHFPVPSTR
SQINKFLYLHTSERMPRRAHSNMLTIKALHVAPTTNLGGPECCLRVSLMPLRLNVDQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /protein_id="BAA23700.1"
/db_xref="GI:2662089"
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/clone_lib="pBluescriptII SK plus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /sex="male"
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/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (12-OCT-2000) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Birren, B., Linton, L., Nusbaum, C. and Lander, E. Homo sapiens chromosome 11, clone CTD-2380K20
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sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads and the order in which they appear is completely
                                                                                                                           NOTE: This record contains 79 individual
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                                                                                                                                                                                                            Center: Whitehead Institute/ MIT
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VSRSLQDKRSARRLRRGQQPADLREGVAKAYDTVREGILDTAQTICDVASRGHEQKGL
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overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completion. In the event that the record is updated, the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  arbitrary. Low-pass sequence sampling is identifying clones that may be gene-rich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           be preserved.
                                                                                                                                                                                                                                                                                              10047 10146: gap of 100 bp
10147 10835: contig of 689 bp
10836 10935: gap of 100 bp
10936 11596: contig of 661 bp
11597 11696: gap of 100 bp
11597 12380: contig of 684 bp
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17133 17814: contig
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'2 5471: gap of
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13248: gap of 100 bp 1
13915: contig of 667 bp in
14015: gap of 100 bp 1
14693: contig of 678 bp in
4793: gap of 100 bp 1
15464
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3803: contig of 684
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9276: contig of 699 k
9376: gap of 100 bp
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7: contig of 669 bp
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contig of 679 l
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Submitted (30-NOV-1999) Masahira Hattori, The Institute of Physical Submitted (30-NOV-1999) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC);
Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanagawa 228-8555,
Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanagawa 228-8555,
Japan (E-mail:hattori@gsc.riken.go.jp,
URL:http://hgp.qsc.riken.go.jp/, Tel:81-42-778-9923,
Fax:81-42-778-9924)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 135237)

Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hon Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Homo sapiens 135,237 genomic DNA of 11q13 published Only in DataBase (1999) In press 2 (bases 1 to 135237)

Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hon Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and
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On Mar 16, 1999 this sequence version replaced qi
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Fu, Y., Pan, H., Wang, Y.
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Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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              Center project Information
Center project name: Humbraftl1
Center clone name: Xxpac-969D1
Center clone name: Xxpac-969D1
Sequencing vector: PCR products; 100% of reads Chemistry: Dye-terminator ET-amersham; 100% of reads Assembly program: Phrap; version 0.990329
Consensus quality: 116075 bases at least Q30
Consensus quality: 124675 bases at least Q30
Consensus quality: 129566 bases at least Q20
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                                                                                                                                                                                                                                                         Web site: http://hgp.gsc.riken.go.jp/Contact: hattori@gsc.riken.go.jp
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Quality coverage: 4.10x in Q20 bases; sum-of-contigs

NOTE: This is a 'working draft' sequence. It currently consists of 31 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved

1 14762 contig of 14762 bp in length

125747 127255 129550 130924 133005 134159 10637 101745 121798 103888 14863 22848 31978 14762 contig of
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Sequence updated (26-May-2000).

\* NOTE: This is a 'working draft' sequence. It currently consists of 31 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown.

\* This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.

1 14762: contig of 14762 bp in length
14763 14862: gap of 100 bp
14863 22747: contig of 7885 bp in length
22748 22847: gap of 100 bp
22848 31877: contig of 9030 bp in length
31878 31977: gap of 100 bp
31978 40788: contig of 8811 bp in length
40789 40888: gap of 100 bp
40889 50262: contig of 9374 bp in length
50363 50362: gap of 100 bp
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56311 56410: gap of 100 bp
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101745 103787: contig of 2043 bp in length
103788 103887: gap of 100 bp
103888 106271: contig of 2384 bp in length
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110311 112278: contig of 1968 bp
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88812. 93006
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93107. .97278
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14863. .22747
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93106: gap of 100 bp
97278: contig of 4172 bp in length
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125646: contig of 1639 bp in
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1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/,
Tel:81-45-503-9111, Fax:81-45-503-9170)
On Jan 16, 2001 this sequence version replaced gi:8117633.
Center project Information
Center project name: Humbraftll
Center clone name: RP11-665N17
Center clone name: RP11-65SN17
Center clone name: RP11-65SN17
Center clone name: RP11-65SN17
Center clone name: RP11-65SN17
Summary Statistics
Sequencing vector: PCR products; 100% of reads
Chemistry: Dye-terminator ET-amersham; 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 156782 bases at least Q40
Consensus quality: 156782 bases at least Q30
Consensus quality: 150361 bases at least Q20
Insert size: 163669; sum-of-contigs
Quality coverage: 8.32x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P., Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P., Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y. Homo sapiens 166,269 genomic DNA of 11q13
Published Only in DataBase (2000) In press
2 (bases 1 to 166269)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (18-FEB-2000) Masahira Hattori, The Institute of Physical
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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HOMO Sapiens DNA, clone:RP11-665N17.
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center code: RIKEN
Web site: http://hgp.gsc.riken.go.jp/
Contact: hattori@gsc.riken.go.jp
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NOTE: This is a 'working draft' sequence. It currently consists of 27 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be

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28496 43446: contig of 14951 bp in 1.
43447 43546: gap of 100 bp
43547 58083: contig of 14537 bp in 1.
58084 58183: gap of 100 bp
58184 68688: contig of 8685 bp in 1e
66869 66968: gap of 100 bp
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76575 76674: gap of 100 bp
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120259 120358: gap of 100 bp
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162804 163847: contig of 1044 bp
163848 163947: gap of 100 bp
163848 163947: gap of 1174 bp
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161500 161599: gap of 100 bp
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155656 157198: contig of 1543 bp
157199 157298: gap of 100 bp
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151107. .153748
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120359. .125359
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                                                                                                                               NOTE: This is a 'working draft' sequence. It currently consists of 33 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
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Submitted (17-DEC-1999) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC); Kitasato Univ. 1-15-1 Kitasato, Sagamihara, Kanagawa 228-8555, Japan (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-42-778-9923, Pax:81-42-778-9924)
On May 31, 2000 this sequence version replaced gi:6997744.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published Only in DataBase (1999) In press 2 (bases 1 to 171980)
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                 Assembly program: Phrap; version 0.990329 Consensus quality: 141099 bases at least Q40 Consensus quality: 154862 bases at least Q30 Consensus quality: 163556 bases at least Q20 Insert size: 168780; sum-of-contigs Quality coverage: 3.98x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                          Center project Information
Center project name: HumDraftll
Center clone name: RP11-772K10
                                                                                                                                                                                                                                                                                                                                                                  Sequencing vector: PCR products; 100% of reads Chemistry: Dye-terminator ET-amersham; 100% of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center: RIKEN Genomic Sciences Center(GSC)
Center code: RIKEN
Web site: http://hgp.gsc.riken.go.jp/
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Pred. No. 2.8e+02;
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116902 122089: gar

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* 125947 126046: gap of

* 126047 132109: contig of 60

1321109: gap of

132110 132209: gap of
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* NOTE: This is a 'working draft' sequence. It currently

* consists of 33 contigs. The true order of the pleces

* is not known and their order in this sequence record is
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* This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
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103911 110522: gap of 110423 110523 116801: contig of 6279 bp in J

110523 116801: gap of 1100 bp

116802 116901: gap of 5088 bp in

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116902 121989: contig of 5088 bp in
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26816 26915: gap of 100 bp
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46388: contig of 8426 bp in length
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163308 163407: gap of 100 bp
163408 165408: gap of 100 bp
165488 165587: gap of 100 bp
165588 167834: contig of 2147 bp in 1e
167735 167834: gap of 100 bp
167835 168855: contig of 1021 bp in 1e
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170190 170655: contig of 466 k
170656 170755: gap of 100 k
170756 171980: contig of 1225
Location/Qualifiers
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148412 150652: contig of 2241
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140567 140666: gap of 100 bp
140567 144574: contig of 3908 bp in length
144575 144674: gap of 100 bp
144575 1448111: contig of 3637 bp in length
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Submitted (29-MAR 2000) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC); Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanagawa 228-8555, Japan (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-42-778-9923, Fax:81-42-778-9924)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Published Only in DataBase (2000) In press 2 (bases 1 to 178100)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.I Fujiyama,A., Yada,T., Totoki,Y., Watanabe, Direct Submission
                                                                                                                                                                                                                                                                                       order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
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                                                                                                                                                                                                                                                                                                                                                 NOTE: This is a 'working draft' sequence. It currently consists 40 contigs. The true order of the pieces is not known and their
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                              Sequencing vector: PCR products; 100% of reads Chemistry: Dye-terminator ET-amersham; 100% of reads Assembly program: Phrap; version 0.990329
Consensus quality: 148042 bases at least Q40
Consensus quality: 162125 bases at least Q30
Consensus quality: 169512 bases at least Q20
Consensus quality: 169512 bases at least Q20
Insert size: 174200; sum-of-contigs
quality coverage: 4.12x in Q20 bases; sum-of-contigs
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161284 conti 163110 conti 164636 conti 166593 conti 167867 conti 169543 conti 170824 conti 172804 conti 172804 conti 172807 conti 175750 conti

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140382 142702 145578

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* NOTE: This is a 'working draft' sequence. It currently consists of 40 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown.

* This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
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O'Donnell, P., O'Neil, D., O'Neil, D., Royer, P., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Royans, Santos, R., Schauer, S., Schuppack, R., Seana, S., Severy, P., Roman,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Birren,B., Linton,L., Nusbaum,C., Lander,E., Allen,N., Anderson,S Barna,N., Bastien,V., Boguslavkiy,L., Boukhgalter,B., Brown,A., Camarata,J., Campopiano,A., Choepel,Y., Colangelo,M., Collins,S., Collymore,A., Cooke,P., Dearn, R., Diaz,J.S., Collymore,A., Cooke,P., Dearn, R., Diaz,J.S., Collymore,A., Cooke,P., Dearn Land, K., Diaz,J.S., Collymore,A., Cooke,P., Dearn Land, R., Coo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sougnez,C., Spencer,B., Stange-Thomann,N., Stojanovic,N., Strauss,N., Subramanian,A., Talamas,J., Tesfaye,S., Theodor Travers,M., Travis,N., Trigilio,J., Vassiliev,H., Viel,R., Wilson,B., Wu,X., Wyman,D., Ye,W.J., Young,G., Zainoun,J.,
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Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
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NOTE: This is a 'working draft' sequence. It currently consists of 23 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 187483)
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64259 64358: gap of 100 bp
64359 69102: contig of 4744 bp in length
69103 69202: gap of 100 bp
69203 80578: contig of 11376 bp in length
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                                                                  Birren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, S. Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Brown, A., Campopiano, A., Choepel, Y., Collangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Karatas, A., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J., Levine, R., Liu, G., MacLean, C., MacGonald, P., MacKernan, K., MacKernan, M., MacKernan, K., MacKernan, M., MacKernan, K., MacKernan, M., MacKernan, K., MacKernan, M., Ma
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McPheeters, R., Meldrim, J., Murphy, T., Naylor, J., Nguy
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114121. .128914
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100003. .114020
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80679. .91084
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46606. .51462
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140937. .162541
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129015. .140836
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162642. .185670
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Nguyen, C.,
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Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Sougnez, C., Spencer, B., Stanger, Though Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Travers, M., Travis, N., Trigilio, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Wong, G., Zainoun, J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      on Jul 29, 2001 this sequence version replaced gi:13376411. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (17-FEB-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
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Chemistry: Dye-terminator Big Dye; 100% of read Assembly program: Phrap; version 0.960731 Consensus quality: 196370 bases at least Q40 Consensus quality: 198053 bases at least Q30 Consensus quality: 198627 bases at least Q20 Insert size: 194000; agarose-fp Consert size: 194000; agarose-fp Quality coverage: 7.2 in Q20 bases; sum-of-cont Quality coverage: 7.0 in Q20 bases; sum-of-cont
                                                                                                                                                                                                                                                                                                                                                                     Sequencing vector: Plasmid; n/a; 100% of reads
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25981 26080: gap of 100 bp 10 length 67366 67465: gap of 41285 bp in length 67366 67465: gap of 41285 bp in length 67366 67465: gap of 41285 bp in length 70289 70388: gap of 100 bp 70389 81733: contig of 11335 bp in length 81724 81823: gap of 100 bp 10 length 91724 81824 9377: contig of 11554 bp in length 91724 81824 9377: contig of 11554 bp in length 91724 8172; gap of 100 bp 125021: contig of 31544 bp in length 125021; gap of 100 bp 125122 156983: contig of 31542 bp in length 15984 157083: gap of 100 bp 115984 157083: gap of 100 bp 115984 157083: gap of 100 bp 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of 1198428: gap of arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved. 1 21293: contig of 21293 bp in length 21294 21393: gap of 100 bp 21394 22583: contig of 1190 bp in length 22584 22683: gap of 100 bp 22684 23723: contig of 1040 bp in length 23724 23823: gap of 1000 bp 23724 23823: gap of 1000 bp 23724 23823: gap of 1000 bp /chromosome="11" /map="11" /organism="Homo sapiens" /db\_xref="taxon:9606" 1. .200026 Location/Qualifiers 25980: contig of 2157 b<sub>1</sub> 26080: gap of 100 bp 67365: contig of bp in length

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AUTHORS
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                                                                        Submitted (29-JAN-1998) Joint Genome Institute, Lawrence Livermore National Laboratory, 7000 East Ave., Livermore, CA 94551, USA Map and sequence oriented from centromere to q telomere.
                                                                                                                                                                                                                                                                                                                                                       Burkhart-Schultz,K., Gördon,L., Kyle,A., Ramirez,M., Stilwagen,S., Garnes,J., Danganan,L., Poundstone,P., Christensen,M., Georgescu,A., Avila,J., Liu,S., Bruce,R., Quan,G., Montgomery,M., Ow,D., Nolan,M., Trong,S., Kobayashi,A., Olsen,A.O. and
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1 (bases 1 to 4132)

Lamerdin, J.E., McCready, P.M., Skowronski, E., Adamson, A.W.,
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Cosmid R30217 overlaps cosmid R28253 to the left and F18750 to right.
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                                                                                                                                                                                                                                                                                                                                   Carrano, A.V.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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157084..198328
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/clone_lib="RPCI-11 Human Male BAC"
1. .21293
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125122. .156983
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22684. .23723
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85.2%;
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 Mismatches

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                                                                                                                                                                                                                                                                                                                                                    /rpt_family="AT_rich" 7067. .7364
                                                                                                                                                                                                                                       /rpt_family="MIR"
7718. .8134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="DDS similarity to multiple ESTs:
(4960. .5217) AA446441 zw60d10.rl Soares total fetus Nb2HF8
9W Homo sapiens cDNA clone 774451 5' similar to contains
LTR3.t2 LTR3 repetitive element;
(1. .259); 98% identity.-(4962. .5216) AA195132 zr34b08.rl
Soares NhHMPU S1 Homo sapiens cDNA clone 665271 5' similar
to contains LTR3.bl LTR3 repetitive element; (1. .253); 99%
identity.-(4962. .5216) W03459 za06e09.rl Soares melanocyte
2NbHM Homo sapiens cDNA clone 291784 5' similar to
contains LTR3.bl LTR3 repetitive element; (1. .253); 96%
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4047. .4324
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match: 1, score: 1.8e-294; database searched: nt; Human
DNA from overlapping chromosome 19-specific cosmids R29;
and R28253, genomic sequence, complete sequence [Homo
                                                                                /rpt_family="AluJo"
9573. .9676
                                                                                                                                                                                           /rpt_family="LTR3"
complement(8649. ...
                                                                                                                                                                                                                                                                                                                                                                                                                 /rpt_family="LINE2"
complement(6952. .6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and others.
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/rpt_family="(CA)n"
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1917. .2204
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complement(1443. .179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="DDS similarity to AA229025 nc50c11.s1 NCI_CGAP_Pr3 Homo sapiens cDNA clone IMAGE:1011572. Score: 550 Identity: 290/300 (96%)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /rpt_family="AluSc"
complement(989. .1286)
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                                                                                                                                    /rpt_family="LINE2"
}114. .9386
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/rpt_family="MSTC"
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/clone="R30217"
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/chromosome="19"
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predicted exon, program: grail2exons_human_1.3,
predicted exon, program: grail2exons_human_1.3,
predicted exon, program: grail2exons_human_1.3,
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                                                                                                                                                                               comp1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="DPS similarity to (U66561) kruppel-related finger protein [Homo sapiens] (418..473)."
    /rpt_family="(TAA)n"
complement(18051. .18348)
                                                                                      /rpt_family="MER7B" complement(17853. ...
                                                                                                                                                                                                                                                                                                                                                                                               /rpt_family="AluSx"
complement(15566. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KLIIHQRVHTGEKPYECSNCGKFLRYRSTFIKHHKVCTGEKPHECSKCRELFRTKSSLIKH
IIHQQSHTGESPFKLRECGKDFNKCNTGQRQKTHTGERSYECGESSKVFKYNSSLIKH
QIIHTGKRP"
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SKRSDLIQHKKIDLRPRPYVCSECGKAFLTQAHLDGHQKIQTGERRYECNECGKFFLD
SYKLVIHQRIHTGEKPYKCSKCGKFFRYRCTLSRHQKVHTGERPYECSECGKFFRDSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GERYVEGTEVGKTFIRKSNLVQHQKÍHSEGFLSKRSDPIEHQEILSRPTPYECTÖCGK
AFLTQAHLVGHQKTHTGEPPYECNKCGKFFMYNSKLIRHQKVHTGERRYECSECGKLF
MDSFILGHQHVHTGERPFECSICGKFFSHRSTLNMHQRVHAGKRLYKCSECGKAFSK
MDSFILGHUGHLKIHTGERPYECTECEKAFVRKSHLVQHQKIHTDAFSKRSDLIQHKRIDIR
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                                                                                                                                                                                                                      complement(17065.
                                                                                                                                                                                                                                                                /rpt_1
16256
                                                                                                                                                                                                                                                                                                        complement(16055.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  14366. .15116

/note="DPS similarity to (U66561) kruppel-related zinc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13592. .14095
/note="DPS similarity to (U66561) kruppel-related
finger protein [Homo sapiens] (250. .417).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /translation="mcssilkdilhlaehdgthpeqglytcaaehdlhqkeqireklt
RSDEWRPSFVNHSAHVGERNFTCTQGGKDFTASSDLLQQQVLNSGWKLYRDTQDGEAF
QGEDNDFNSSQGGKDFCHQH6LFEHQKTHNGERPYEFSECGELFRYNSNLIKYQQNHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /product="R30217_1"
/protein_id="AAB97932.1"
/db_xref="GI:2822143"
                                                                                                                                                                                                                                                                                                                                                                                                                                         finger protein [Homo 15272. .15565
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/note="DPS similarity to (U66561) kruppel-related zinc finger protein [Homo sapiens] (45. .63); 26% identity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     grail2exons_human_1.3, frame:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_family="MER74"
11448. .11576
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11041. .11377
                                                     18024.
                                                                                                                                                                                                                                        rpt_family-"MER7B"
                                                                                                                                                                                                                                                                                                                               rpt_family="MER1B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="DPS similarity to (U66561) kruppel-related zinc finger protein [Homo sapiens] (64. .249).-Other overlapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /codon_start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note-"hypothetical ZNF-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               score: 83.000"
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                                                                                                                                                                                                                                                                   _family="L1MB3"
6. .1706'
                                                                                                                                                                                                                                                                                                                                                       _family="L1MB3"
1, .16027
                                                                                                                                                                        _family="AluSg"
|ement(1736'
                                                  _family="L1MB3"
. . .18050
                                                                                                                                                           _famil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     _family="MER4D"
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                                                                                                                                  ly="Alusg"
7849
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VERSION
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SOURCE
ORGANISM
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                                                                                        REFERENCE
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JOURNAL
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Best Local
                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
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Evans, G.A., Athanasiou, M., Aguayo, P., Armstrong, D., Basit, M., Buettner, J., Butler, C., Card, P., deSailboat, F., Dunn, J., English, C., Ethridge, S., Garner, H.R., Gee, V., Gordon, M., Gotway, G., Grant, O., Hahner, L., Joslin, J., Lewis, E., Loo, H., Loo, K.N.,
                                                                                                          Direct Submission
Science & Technology Center,
Submitted (10-OCT-1998) Genome Science & Technology Center,
University of Texas Southwestern Medical Center, 5323 Harry Hines
Blvd, Dallas, TX 75235-8591, USA
                                                                                                                                                                                          Evans, G.A., Athanasiou, M., Aguayo, P., Armstrong, D., Basit, M., Buettner, J., Butler, C., Card, P., deSailboat, C., Dunn, J., English, C., Ethridge, S., Garner, H.R., Gordon, M., Grant, O., Hahner, L., Joslin, J., Lewis, E., Loo, H., Loo, K. N., Major, T., McFarland, J., Newton, J., Osborne-Lawrence, S., Schageman, J., Schultz, R.A., Stimson, S., Wagner, N., Waller, K. and Ward, T.
                                                                                                                                                                                                                                                                                                                                                                    Evans, G.A., Athanasiou, M., Aguayo, P., Armstrong, D., Basit, M. Buettner, J., Bumeister, R., Card, P., GeSaliboat, F., Dunn, J., English, C., Ethridge, S., Garner, H.R., Gee, V., Gordon, M., Gorgrant, O., Hahner, L., Joslin, J., Lewis, E., Loo, H., Loo, K.N., Major, T., McFarland, J., Newton, J., Osborne-Lawrence, S., Schageman, J., Schultz, R.A., Stimson, S., Syed, M. and Ward, T. HTGS Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus 1 (bases 1 to 65870)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complete sequence.
AC005807
AC005807.1 GI:3935210
HTG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AC005807 65870 bp
Mus musculus chromosome 17 BAC
                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus
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                                                                                    (bases 1 to 65870)
                                                                                                                                                                                                                                                                                                                          (bases 1 to 65870)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /rpt_family="AluSp"
complement(21402. .21590)
/rpt_family=""
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement(23254 . .23400)
/rpt_family="L1ME"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement(18358..19222)
/rpt_family="L1MB3"
19980..20439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement(22532. .22641)
/rpt_family="L1MA9"
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21846.
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complement(20832. .2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement(23450. .23642)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /rpt_family="(GGAA)n"
complement(22871. .23)
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complement/>1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="DDS similarity to N20479 yx39g09.sl Homo sapiens cDNA clone 264160 3'. Score: 900 Identity: 455/460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_family="MSTC"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  68.0%;
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6. .22100
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ement(23254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 20.4; DB 9; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .22856)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   clone citb585c7 from
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Basit,M.,

Gotway, G.,

MHC region,

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AC107025
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ORGANISM
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ORIGIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
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                                                                       All-osman, F.R., Adio-Oduola, B., Ali-osman, F.R., Allen, C., Muzny, D.M., Adams, C., Adio-Oduola, B., Ali-osman, F.R., Allen, C., Are, J.R., Ayele, M., Banks, T., Barbaria, J., Benton, J., Binage, K., Blankenburg, K., Bonnin, D., Bouck, J., Bowle, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bouck, J., Bowle, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bouck, J., Charler, M., Cavazos, S.R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, G., Chen, Z., Chowdhry, I., Daderich, D.A., David, R., David, R., Delyado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delyado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delyado, O., Denn, A.L., Ding, Y., Dinh, H.H., Delyado, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Gill, R., Chen, R., Chen, A., Garner, T., Garza, N., Gill, R., Chen, R., Garza, M., Garza, M., Gill, R., Chen, R., Garza, M., Garza, N., Gill, R., Garrier, T., Hale, S., Hamilton, K., Gorrell, J.H., Guevara, M., Gunaratne, P., Hale, S., Hamilton, K., Garrier, J., Hulyk, S., Hamilton, K., Garrier, J., Hulyk, S., Hamilton, K., Harris, G., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J., Harris, G., Harris, K., Hart, M., Havlak, P., Hawes, A., Harnandez, J., Jackson, L.E., Jacobson, B., Jia, Y., Johnson, R., Johlwet, S., Hume, J., Jackson, L.E., Jacobson, E., Kellyk, S., Hume, J., Luk, L.C., Lewis, L., Li, J., Liu, M., Loulseged, H., Li, J., Liu, M., Loulseged, H., Lazado, R., Martinez, E., McLeod, M.P., Meador, M., Martinez, E., McLeod, M.P., Meador, M., Martinez, E., McLeod, M.P., Meador,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ctgggcagcaccaagtccggatgcagatcc 30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (01-DEC-1998) Genome Science & Technology Center, University of Texas Southwestern Medical Center, 5323 Harry Blvd, Dallas, TX 75235-8591, USA On Dec 1, 1998 this sequence version replaced gi:3738098.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
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Sutton,A., Svatek,A., Tabor,P., Tamerisa,A., Tamerisa,K., Tansey,J., Taylor,C., Taylor,T., Telfrod,B., Thomas,N., TUsmani,K., Vasquez,L., Vera,V., Villalon,D., Vinson,R., W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC107025 168563 bp DNA linear HTG 31-JAN-2002 Homo sapiens chromosome 3p clone RP11-474M18, WORKING DRAFT SEQUENCE, 28 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               l (bases 1 to 168563)
Muzny,D.M., Adams,C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HTG; HTGS_PHASE1; HTGS_DRAFT.
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/db_xref="taxon:10090"
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findPhrapList
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On Jan 31, 2002 this sequence version replaced gi:18141444.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (14-JAN-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
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Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/cenbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 28 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
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Sequencing vector: Plasmid; M77789

Chemistry: Dye-terminator Big Dye: 100% of reads
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          Birren, B., Linton, L., Nusbaum, C., Lander, E., Abraham, H., Allen, N., Anderson, S., Baldwin, J., Barna, N., Beda, F., Boguslavkiy, L., Boukhgalter, B., Brown, A., Burkett, G., Campopiano, A., Castle, A., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Dodge, S., Domino, M., Doyle, M., Penestor, J., Ferreira, P., FitzHugh, W., Forrest, C., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Grand-Pierre, N., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J. C., Iliev, I., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., Landers, T., Largocque, K., Lehoczky, J., Levine, R., Lieu, C., Liu, G., Looke, K., Macdonald, P., Marquis, N., McCarthy, M., Lieu, C., Liu, G., Looke, K., Macdonald, P., Marquis, N., McCarthy, M.,
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McKernan, K., McPheeters, R.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NOTE: This is a 'working draft' sequence. It currently consists of 12 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chemistry: Dye-terminator Big Dye; 100% of re Assembly program: Phrap; version 0.960731 Consensus quality: 171351 bases at least 040 Consensus quality: 174924 bases at least 030 Consensus quality: 176088 bases at least 030 Consensus quality: 176088 bases at least 020 Insert size: 180000; agarose-fp Insert size: 177315; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Center project name: L6333
Center clone name: 474_M_18
Summary Station:
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Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                        101234 101333: gap of
101334 132080: conti
132081 132180: gap of
132181 178415: conti
                                                                                                                                                                                                                                              26475 39624: contig of 13150 bp in
39625 39724: gap of 100 bp
39725 57149: contig of 17425 bp in
57150 57249: gap of 100 bp
57250 76223: contig of 18974 bp in
76224 76323: gap of 100 bp
76324 101233: contig of 24910 bp in
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1731 1830: gap of 100 bp
1831 4407: contig of 2577 bp in length
4408 4507: gap of 100 bp
4508 9349: contig of 4842 bp in length
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4508 9349; contig of 4842 bp in length
9350 9449; gap of 100 bp
9450 15955; contig of 6506 bp in length
/organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                 055: gap of 100 bp 10 length 20307: contig of 4252 bp in length 407: gap of 100 bp 26374: contig of 5967 bp in length 474: gap of 100 bp 39624: contig of 13150 bp in length
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                                                                                      Submitted (28-JAN-1998) Yuichi Endo, Fukushima Medical College, Dept. of Biochemistry; 1-Hikarigaoka, Fukushima-shi, Fukushima 960-12, Japan (E-mail:yendo@cc.fmu.ac.jp, Tel:81-245-48-2111,
                                                                                                                                                                                                                                                                                                                                                                        AB010822
                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens MASP gene
                                                                                                                                     Direct Submission
                                                                                                                                                                     Unpublished (1998)
2 (bases 1 to 3194)
                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                               Homo sapiens
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                                                                            Fax:81-245-48-6760)
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/notce "assembly_fragment"
101334..132080
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/clone_lib="RPCI-11 Human
1. .1730
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132181. .178415
/note="assembly_fragment"
. 31444 c 30146 g 55546 t
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4508. .9349
 /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="F419"
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57250. .76223
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1831. .4407
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88.0%;
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Pred. No. 4.2e+02;
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18.2 kDa oleosin; membrane protein.
18.2 kDa oleosin; membrane protein.
Gossypium hirsutum
Gossypium hirsutum
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnollophyta; eudicotyledons; core eudicots;
Spermatophyta; Magnollophyta; Malvales; Malvaceae; Gossypium.
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Hughes, D. W., Wang, H.Y. and Galau, G.A.
Cotton (Gossypium hirsutum) MatP6 and MatP7 oleosin
Plant Physiol. 101, 697-698 (1993)
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2379. .2433
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AVLTLLPIGGTLALAGLTLAGTVIGLMLATPLFIITSPVLVPAAIAIAMAVTGFLSS
GAFGLTGLSSLSYVLNRLRYATGTEQLDLDHAKRRVQDMTEYVGQKTKEVGQKIENKA
                                                                                                                                                                                                                                                                                                                                                     /gene="MatP6-A" 3265. .4067
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(preendoreduplication) cotyledon"
3265. .3348
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2379. .2428
                                                                          /note="putative"
4042. .4047
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                                                                                                    /gene="MatP6-A"
                                                                                                                                       HEGQVGRT"
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                                                                                                                                                                                                                                                                                                                        /evidence=experimental
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /strain="Coker 201"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organism="Gossypium hirsutum"
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/evidence=experimental
               /gene="MatP6-A"
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Submitted (12-OCT-2001) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One
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(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html)
NOTE: This sequence may represent more than one clone.
NOTE: This is a 'working draft' sequence. It currently
consists of 57 contigs. The true order of the pieces
is not known and their order in this sequence record is
arbitrary. Gaps between the contigs are represented as
runs of N, but the exact sizes of the gaps are unknown.
This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              as soon as it is available and the accession number will be preserved.
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Matches :
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              Eukaryota; Fungi; Ascomycota; S. Saccharomycetales; mitosporic S. 1 (bases 1 to 5883)
Braun, B.R. and Johnson, A.D. TUPI, CPHI and EFGI make independent of candida albicans
Genetics 155 (1), 57-67 (2000)
                                                                                                                                                                                                                                                AF254143
Candida a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CB10 1RQ, England. E-mail contact: humquery@san 2 (bases 1 to 258)
Cross,S.H., Charlton,J.A., Nan,X. and Bird,A.P. Purification of CpG islands using a methylated Nat. Genet. 6 (3), 236-244 (1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HS157D11R 258 bp DNA linear PRI 19-OCT-1995 H.sapiens CpG island DNA genomic Msel fragment, clone 157d11, reverse read cpg157d11.rtla.
                                                                                                                                          Candida albicans
Candida albicans
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AF254143.1
                                                                                                                                                                                                                                                                                                                                                                                                                                th 65.3%;
Similarity 84.6%;
22; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       http://www.hgmp.mrc.ac.uk/ for details
or contact: biohelp@hgmp.mrc.ac.uk.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Clones are available from Resource Centre, Hinxton,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (16-OCT-1995) The Sanger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 (bases 1 to 258)
Dodsworth, S.J., Huc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /dev_stage="adult"
/tissue_type="blood"
/clone_lib="CGI-1"
/clone="157d11"
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/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 19.6; DB 9;
Pred. No. 8.2e+02;
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                                                    contributions
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2 (RBT2) gene, complete
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                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 64116)
Birren,B., Linton,L., Nusbaum,C. and Lander,E. Homo sapiens chromosome 17, clone RP11-158C19
                                                                                                                                                                                                                                                   Homo sapiens chromosome SEQUENCE SAMPLING. AC107940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 (bases 1 to 5883)
Braun, B.R., Head, W.S., Wang, M.X. and Johnson, A.D.
Identification and characterization of TUP1-regulated genes in Candida albicans
                    Unpublished
                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                       AC107940
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Direct Submission
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aun, B.R. and Johnson, A.D.
(bases 1 to 64116)
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/protein_id="AAG09788.1"
/protein_id="AAG09788.1"
/db_xref="G1:9963984"
/translation="MWAINSLLFAAITLVSSAQATDTLTIYHNNKFAVQACKGLIGKT
/translation="MWAINSLLFAAITLVSSAQATDTLTIYHNNKFAVQACKGLIGKT
AVLTNETTDKAGFCNVKNQQALGTMAECIELMPHKDSRKEFLKTCKKFNLTEEDYLAA
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WKNATEFGYVAVGICNLTYFLEPGFVKSLKGGISAMFFRKYITLPALFKKTHAHHKSIF
GVFHAILPTRLESILVVAWFIMALIMNLTNYVHVKPNYIWPQKSNELGRKIADRTGQI
SWMLARPLVLFAGRNNYMOWYSGWPYARFVYIHKMISRVVFMMSIAHGVGNTYNGKGI
SKYTRNAKPYVRWGYVALVAMSIMVFOGFSYFRATNYEVFVMMSIAHGTVKVTVSRPGWWK
PFPGCHAFIHFMRPTCFWQSHPFIIDSVTESNTITFILKKKGGMTHGLKOYLAAQDA
PFPGCHAFIHFMRPTCFWQSHPFIIDSVTESNTITFILKKKGGMTHGLKOYLAAQDA
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VVRHYRSLEWFYQELLKLKDLP1STTVYVTQPNVGLADP1TTDLTDDEEQQEHEQEKK
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/db_xref="taxon:5476"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 19.6; DB 8; Pred. No. 7.9e+02;
                                                                                                                                                                                                                                                                                                                  64116 bp
                                                                                                                                                                                                                                                                                             17 clone RP11-158C19 map 17, LOW-PASS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 5883;
                                                                                                                                                                                                                                                                                                                  linear
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Landers, T., Lehoczky, J., Levine, R., Liu, G., MacLean, C.,
Macdonald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M.,
McEwan, P., McKernan, K., Meldrin, J., Meneus, L., Mihova, T.,
Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R., Norbu, C.,
Norman, C. H., O'Connor, T., O'Donnell, P., O'Nell, D., Oliver, J.,
Norman, C. H., O'Connor, T., O'Donnell, P., O'Nell, D., Oliver, J.,
Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C.,
Retta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J.,
Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S.,
Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N.,
Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J.,
Topham, K., Travis, N., Trigilio, J., Vassiliev, H.,
Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W. J., Young, G.,
Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
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Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads and the order in which they appear is completely arbitrary. Low-pass sequence sampling is useful for identifying clones that may be gene-rich and allows overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completion. In the event that
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------ Project Information
Center project name: L24031
Center clone name: 158_C_19
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2390: contig of 732 bp in length
2490: gap of 100 bp
3200: contig of 732 bp
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4033: cor
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777: gap of 100 bp
6500: contig of 77
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                                                                                                                                                                                                                                                                     100 bp
1331: contig of 731 bp
gap of 100 km
                             pap of 100 bp

14: contig of 726 bp in length
ap of 100 bp

6: contig of 712 bp in length
ap of 100 hm
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10641 10740: gap of 1 10741 11468: contig of

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11469 11568: gap of 100 bp 11159 12302: contig of 734 bp in 112403 12402: gap of 100 bp 12403 12402: gap of 100 bp 12403 13148: contig of 746 bp in 113149 13248: gap of 100 bp 113249 1498: gap of 100 bp 113249 1498: gap of 100 bp 114817: contig of 750 bp in 114918 14917: gap of 100 bp 115615 15714: gap of 100 bp 115615 15714: gap of 100 bp 116428 16527: gap of 100 bp 116428 16527: gap of 100 bp 116428 16527: contig of 733 bp in 16428 16527: gap of 100 bp 116428 17350: gap of 100 bp 116428 17350: gap of 100 bp 116528 17350: gap of 100 bp 116528 17350: gap of 100 bp 116628 17351 18076: contig of 726 bp in 16628 1932 20560: contig of 733 bp in 16628 18999 18998: gap of 100 bp 11932 20560: contig of 733 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 1932 20560: contig of 735 bp in 16628 20560: contig of 735 bp in 16628 20560: contig of 735 bp in 16628 20560: contig of 735 bp in 16628 20
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32875 32974: gap of 100 bp
32975 33697: contig of 723 bp in len
33698 33797: gap of 100 bp
33798 34529: contig of 723 bp in len
34530 34629: gap of 100 bp
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38764: gap of 100 bp
39476: contig of 712 bp
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40296: contig of 720 bp
40396: gap of 100 bp
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30517: gap of 100 bp
31233: contig of 716 bp in 1e
31333: gap of 100 bp
32052: contig of 719 bp in 1er
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181: contig of 698 bp in gap of 100 km
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Direct Submission
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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37 51136: gap of 100 bp
37 51668: contig of 732 bp in 1
69 51968: gap of 100 bp
69 52662: contig of 694 bp in 1
63 52762: gap of 100 bp
63 52762: gap of 1728 bp in 1
63 52762: contig of 728 bp in 1
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680: gap of 100 bm
49399: con+4-
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316: gap of 100 bp
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47747: contig of 749 bp in
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Submitted (24-JUL-1998) The Institute for Genomic Research, Medical Center Dr., Rockville, MD 20850, USA
                                                                                                                                                                                                                                                                                                                  Adams,M.D., Loftus,B.J., Zhou,L., Crosby,M., Fuhrmann,J., Mason,T.M., Brandon,R., Kim,U.J., Kerlavage,A.R. and Venter,J.C Homo sapiens Chromosome 16 BAC clone CIT987SK-A-761H5
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Quality: Phrap Quality >=40 99.9% of Sequence;
Estimated Total Number of Errors is 0.1.
                                                         Direct Submission
                                                                                 Adams, M.D. and Loftus, B.J.
                                                                                                                               mdadams@tigr.org
                                                                                                                                                        Medical Center Dr.,
                                                                                                                                                             Submitted (12-SEP-1997) The Institute for Genomic Research, Medical Center Dr., Rockville, MD 20850, USA, Email:
                                                                                                                                                                                                                 Direct Submission
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Adams, M.D. and Loftus, B.J.
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/db_xref="taxon:9606"
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Address all correspondence to: Mark Adams The Institute for Genomic Research 9712 Medical Center Dr. Rockville, MD 20850, USA e-mail address: humgen@tljgr.org. The orientation of the sequence is from sp6 end to T7 end. Genes were identified by a combination of five methods including: XGRAIL (available by anonymous ftp from arthur.epm.ornl.gov), Genefinder (Phil Green, University of Washington), Genscan (Chris Burge,
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DEDSEDSEDDEDMTGSTSSDSDSEEEEGRQTALASRFIKKKPEDEDKRAAEKKRED
KAKKHIDRK SKRILDEEEGEDNEGGEWEERVRGGVELVKEKFWFAKGTEITHAVVIKKL
EILQARGKKGTDRAAQIELLQLLVQIAAENNLGEGVIVKIKFNIIASLYDYNPNLATY
MKPEMMGKCLDCINELMDILFANPNIFYGENILEESGBUHNHADDDLRVRGCILTIVER
MDEETTKINGNTDPHSGSVENHELMDEAQVCAIIERVORKLEEKGTTEEVGRYLLTIVER
HTYYKFDYKAHQRQLTPPEGSSKSEQDQAENEGEDSAVLMERLCKYIYAKDRTDRIRT
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ECVYLVSAMLLEIPYMAAHESDARRRMISKQFHHQLRVGERQPLLGPPESMREHVVAA
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                                                                                                                                                                                                                 SKAMKMGDWKTCHSFIINEKMNGKVWDLFPEADKVRTMLVRKIQEESLRTYLFTYSSV
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PPSVDDNLKTPPLATQEAEVEKPPKPKRWRVDEVEQSPKPKRRVDEVEQSPKPKRRR
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.144769))
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Direct Submission
Submitted (30-AUG-2001) Genome
University School of Medicine,
MO 63108, USA
Submitted (08-SEP-2001) Genome University School of Medicine,
                                         Waterston, R.H.
Direct Submission
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Submitted (01-SEP-2001) Genome
University School of Medicine,
                                                                                                                                                                                             5 (bases 1 to 166719)
Waterston, R.H.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (2001)
3 (bases 1 to 166
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  Sequencing Center, Washington 4444 Forest Park Parkway, St.
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                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The RRCI-11 human BAC library was made from the blood of one male donor, as described by Osoegawa,K., Woon,P.Y., Zhao,B., Frengen,E., Tateno,M., Catanese,J.J. and de Jong,P.J. (1998) An improved approach for construction of bacterial artificial chromosome libraries. Genomics 51:1-8. The clone may be obtained either from Research Genetics, Inc. (http://www.resgen.com) or Pieter de Jong and Coworkers at the Roswell Park Cancer Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence was finished as follows unless otherwise noted: all regions were double stranded, sequenced with an alternate chemistry, or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by sequence from more than one subclone; and the assembly was confirmed by restriction digest.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOTICE: This sequence may not represent the entire insert of this clone. It may be shorter because we only sequence overlapping clone sections once, or longer because we provide a small overlap between neighboring data submissions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (09-JAN-2002) Department of Genetics, Washington University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, On Aug 30, 2001 this sequence version replaced gi:13570009.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence derived from pcr from base Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NEIGHBORING SEQUENCE INFORMATION: Actual start of this clone is at base actual end is at base position 166719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mapping information for this clone was provided by Dr. John D. McPherson, Department of Genetics, Washington University, St. Louis MO. For additional information about the map position of this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence, see http://genome.wustl.edu/gsc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MAPPING INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (http://bacpac.med.buffalo.edu)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Web site: http://genome.wustl.edu/gsc
Contact: sapiens@watson.wustl.edu
----- Summary Statistlcs
Center project name: H_NHO803A13
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of RP11-803A13.
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Result
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Listing first 45 summaries
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                                                                                                                                                                                                                                                             Score
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Copyright (c) 1993 - 2000 Compugen Ltd.
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AAQ73500	AAH26807	ABL07968	AAK70210	AAV02997	AAI38021	AAI15983	AAK32172	AAK06491	ABA27497	ABA58386	AAI51179	AAI25200	AAK45228	AAK19258	ABA37402	ABA70982	AAK78350	AAK73934	AAK73847	AAK73625	AAK73344	AAK73334	AAK66308	AAK66307	AAK66306	AAA15881	AAA15766	AAV63565	AAT37911	AAA15764	AAT13809	AAT13810	3	379	AAC81777
DNA encoding Pseud	Mouse osteoregulin		immune/hae	VASP 1	#6707 used	Probe #5916 for ge		brain	Probe #5963 for ge	foetal	: #19865 used	Probe #15133 for g		brain expre	#15868			_	_	Human immune/haema	Human immune/haema	Human immune/haema	_		n immune/		DNA encoding VEGF-	lone encodi			0	Murine VRF167 cDNA	ne enco	1 VEGF-B co	Murine vascular en

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## ALIGNMENTS

AAT33613

AAT33613 standard; cDNA; 910

ВP

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22-DEC-1995;
02-MAR-1995;
20-NOV-1995;
                                                             CDS
                                            mat_peptide
                                                    sig_peptide
                22-FEB-1996;
                        06-SEP-1996
                                 WO9627007-A1
                                                                         Homo sapiens
95AU-0007274.
95AU-0001457.
95AU-0006647.
                96WO-AU00094
                                            /*tag=
66..305
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                                                            Location/Qualifiers
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Vascular endothelial growth factor; VEGF; SOM175-e4; neuron; astroglial proliferation; ss.

Vascular endothelial growth factor-like protein SOM175-e4 cDNA

30-NOV-1996

(first entry)

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RESULT
AAA15763
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                                                                                                                                                                                                                                                            Vascular endothelial growth factor 3; VEGF-3; homologue; vascular expression; lymphatic; bone marrow; colon; heart; kidney; ovary; cancer; wounds; autoimmune disease; HIV; inflammation; heart disease; ds.
         Disclosure;
                           New human gene encoding vascular endothelial growth factor 3 and polypeptide encoded by the gene is useful for treating various disorders associated with vascular and lymphatic system -
                                                                                                                                        10-AUG-1998;
10-FEB-1999;
                                                                                                                                                                                                                   WO200009148-A1.
                                                                                                                                                                                                                                                                                                      DNA encoding
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                                                                                                                                                                         10-AUG-1999;
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                                                                                                                                                                                                                                        Homo
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      Page 137; 209pp; English
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                                                                                                                                                                                                                                                                                                        VEGF-3
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                                                                                                                   GENOME SCI INC
                                                                                                                                        98US-0132088.
99US-0244694.
                                                                                                                                                                         99WO-US18054.
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                                                                                               Rosen
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Best Local S
Matches 27
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01-MAR-1995;
06-JUN-1995;
                                                                Vascular endothelial growth factor VEGF-B proteins - useful to accelerate angiogenesis in wound healing, also related nucleic and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody; cancer; metastatic risk; tumour cell; mouse; ss.
                                                                                                                                                                                                                       Alitalo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VEGF-B112 coding sequence
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                                                                                                                                                      P-PSDB;
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27; Conser
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95US-0397651.
95US-0469427.
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0.041;
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Claim 1; Page 57; 107pp; English

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01-MAR-1995;
06-JUN-1995;
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                                                             Alitalo
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                                                                                                                                                                                                                                                                                                                                                                                                                       endothelial
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cDNA clone encoding vascular endothelial growth factor (VEGF)-B112
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                              WPI; 1999-034079/03
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                                                             Eriksson
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95US-0397651.
95US-0469427.
95US-0569063.
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Best Local :
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01-MAR-1995;
06-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence encodes murine vascular endothelial growth factor (VEGF) B112. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours \{x_i, y_i, y_i\}
                                                Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing, and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                            vascular permeability factor; cell mitogen; angiogenesis; cell
embryonic development; wound healing; tissue reorganisation; ar
cancer; metastatic risk; tumour cell; mouse; ss.
                                                                                                                                                                                                                                                                                                                                                                                                               Endothelial cell; proliferation; vascular endothelial growth factor; VPF
                                                                                                                                                                                                                                                                                                                                                                                                                                        Adult heart VEGF-B167 coding
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                         01-MAR-1996;
                                                                                                                                                                                                                                                                                 06-SEP-1996
                                                                                                                                                                                                                                                                                                          W09626736-A1
                                                                                                                                                                                                                                                                                                                                  Mus musculus
                        Claim 1;
                                                                                                 P-PSDB; AAW04826.
                                                                                                               WPI; 1996-412582/41.
                                                                                                                                        Alitalo
                                                                                                                                                               (LUDW-) LUDWIG INST CANCER RES (UYHE-) UNIV HELSINKI LICENSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G
                                                                                                                                                                                                                                                                                                                                                                                                   endothelium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                      Page 54-55; 107pp; English
                                                                                                                                        Eriksson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                  HELSINKI LICENSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7; 52pp; English.
                                                                                                                                                                                                    95US-0569063.
95US-0397651.
95US-0469427.
                                                                                                                                                                                                                                                         96WO-US02957.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                   mesodermal cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; 113 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89.3%;
93.3%;
                                                                                                                                        Ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and proliferate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 26.8;
Pred. No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                  LTD OY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ű
                                                                                                                                                                                                                                                                                                                                                                                                   cationic dimer; tissue regeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   79 T;
                                                                                                                                        Pajusola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
.047;
                                                             proteins
also rela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
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                                                              related
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                                                                           useful
                                                              seful to
nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             405;
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                                                              acid
                                                                                                                                                                                                                                                                                                                                                                                       growth;
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0;

AAT37909-T37915 represent the coding sequences

for the vascular

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RESULT
AAV63564
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cc endothelial or mesodermal cell proliferation. VEGF is also a
cc glycosylated cationic dimer, and is sometimes referred to as vascular
cc permeability factor (VPF). VEGF has diverse effects, depending on the
cc specific biological context in which it is found. VEGF is a potent
cc endothelial cell mitogen, and directly contributes to induction of
cc angiogenesis in vivo by promoting endothelial cell growth during normal
cc embryonic development, wound healing, and tissue
cc regeneration/reorganisation. The VEGF proteins of the invention share
cc the angiogenic and other properties of VEGF, but are distributed and
cc expressed in tissues differently to VEGF. The proteins can therefore be
cc used to accelerate angiogenesis in wound healing. Antibodies against the
cc proteins can be used for inhibiting angiogenesis. The antibodies can
cc also be used diagnostically to quantitatively detect VEGF-B. Primers
cc complementary to the coding sequences for the proteins of the invention
cc can also be used to detect VEGF-B coding sequences. Quantification of
cc VEGF-B in cancer biopsy specimens may be useful as an indicator of
cc metastatic risk. VEGF-B expression in a cell can be retarded using
cc antisense sequences direct against the VEGF coding sequences, this is
cc especially useful in retarding VEGF expression in tumour cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                    (TUDW-)
                                                                                                                                  06-JUN-1995;
06-DEC-1995;
                                                                                                                                                                01-MAR-1996;
01-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                              Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cDNA clone encoding vascular endothelial growth factor (VEGF)-B167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAV63564 standard;
            P-PSDB;
                            WPI; 1999-034079/03.
                                                        Alitalo K,
                                                                                                                                                                                                              01-MAR-1996;
                                                                                                                                                                                                                                           24-NOV-1998
                                                                                                                                                                                                                                                                        US5840693-A.
                                                                                                                                                                                                                                                                                                                                                                                                                            endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                          Vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             endothelial growth factor (VEGF) proteins of the invention,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 ctgggcagcaccaagtccggatgcagatcc 30
                                                                                                                                                                                                                                                                                                                                                                                              sp.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ctgggcaacaccaagtccgaatgcagatcc
                                                                                   LUDWIG INST CANCER RES.
UNIV HELSINKI LICENSING LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                        endothelial growth factor; VEGF; proliferation; mouse;
ial cell; angiogenesis; tissue growth; organ repair; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            565 BP; 120 A; 179 C;
                                                       Eriksson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                96US-0609443.
95US-0397651.
95US-0469427.
95US-0569063.
                                                                                                                                                                                                            96US-0609443
                                                                                                                                                                                                                                                                                                      /product= VEGF-B167
/transl_except= (po
                                                                                                                                                                                                                                                                                                                                  /*tag=
                                                                                                                                                                                                                                                                                                                                                                 location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDNA; 565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89.3%;
93.3%;
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                                                          Olofsson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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Pred.
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No. 0.
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                                                                                        9
                                                        Pajusola K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                       06-DEC-1995;
01-MAR-1995;
06-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence encodes murine vascular endothelial growth factor (VEGF)-B167. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as anglogenesis is required by tumours as they need new blood remarks.
                                                                                                                                                                                                                                                                                                                                                       VEGF; endothelium; mesodermai ceil; culturate angiogenesis; cell growth; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody; cancer; metastatic risk; tumour cell; mouse; ss.
                      Claim 1;
                                                                                                                                                                (LUDW-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferatiand raising antibodies to inhibit activities in e.g. tumours
                                                            accelerate
                                                                                                                 WPI; 1996-412582/41.
                                                                                                                                          Alitalo
                                                                                                                                                                                                                                                            01-MAR-1996;
                                                                                                                                                                                                                                                                                    06-SEP-1996
                                                                                                                                                                                                                                                                                                               WO9626736-A1
                                                                                                                                                                                                                                                                                                                                       Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                            VEGF-B186
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAT37914 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 565 BP;
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                                                                                                                                                                                                                                                                                                                                                                                                                 Endothelial cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     273 ctgggcaacaccaagtccgaatgcagatcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 ctgggcagcaccaagtccggatgcagatcc
                                             cular endothelial growth factor VEGF-B elerate angiogenesis in wound healing, antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7
                                                                                                                                         ζ,
                                                                                                                                                                 UNIV HELSINKI LICENSING
                                                                                                   AAW04830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                      Page 60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 supplies
                                                                                                                                                                                                                                                                                                                                                                                                                                           coding
                                                                                                                                         Eriksson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3; 52pp; English.
                                                                                                                                                                                                       95US-0569063.
95US-0397651.
95US-0469427.
                                                                                                                                                                                                                                                            96WO-US02957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120 A; 179 C; 166
                    107pp;
                                                                                                                                                                                                                                                                                                                                                                                                     proliferation; vascular endothelial growth factor; VPF
; mesodermal cell; cationic dimer; tissue regeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to grow and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89.3%;
93.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        624
                      English.
                                                                                                                                         Olofsson B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 26.8; I
Pred. No. 0.05
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 proliferate.
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                                                                                                                                         Pajusola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .05;
                                                               proteins
also rela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DВ
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                                                               related
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                                                               useful to
ed nucleic
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AAT37909-T37915 represent the coding sequences for the

vascular

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RESULT
AAV63568
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Best Local :
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                                                                                                                                                                                                                                               01-MAR-1996;
01-MAR-1995;
06-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   embryonic development, wound healing, and tissue regeneration/reorganisation. The VEGF proteins of the invention share the angiogenic and other properties of VEGF, but are distributed and expressed in tissues differently to VEGF. The proteins can therefore used to accelerate angiogenesis in wound healing. Antibodies against t proteins can be used for inhibiting angiogenesis. The antibodies can also be used diagnostically to quantitatively detect VEGF-B. Primers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           endothelial growth factor (VEGF) proteins of the invention, which promote endothelial or mesodermal cell proliferation. VEGF is also a glycosylated cattonic dimer, and is sometimes referred to as vascular permeability factor (VPF). VEGF has diverse effects, depending on the specific biological context in which it is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of angiogenesis in vivo by promoting endothelial cell growth during normal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complementary to the coding sequences for the proteins of the invention can also be used to detect VEGF-B coding sequences. Quantification of VEGF-B in cancer biopsy specimens may be useful as an indicator of metastatic risk. VEGF-B expression in a cell can be retarded using antisense sequences direct against the VEGF coding sequences, this is especially useful in retarding VEGF expression in tumour cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              endothelial
Vascular endothelial growth factor-B iso:forms, and
                                             WPI; 1999-034079/03
P-PSDB; AAW80494.
                                                                                                                                                          (LUDW-)
                                                                                                                                                                                                                                                                                                                                              01-MAR-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cDNA clone
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 624 BP; 124 A; 213 C; 173 G; 114 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
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                                                                                                                                                            LUDWIG
UNIV HE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       endothelial growth factor; VEGF; proliferation; mou;
lal cell; angiogenesis; tissue growth; organ repair;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            encoding vascular endothelial growth factor (VEGF)-B186
                                                                                                             Eriksson
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                                                                                                                                                          IG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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95US-0397651.
95US-0469427.
95US-0569063.
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/product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
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                                                                                                                                                          LICENSING
                                                                                                             Olofsson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VEGF-B186
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26.8; DB
No. 0.051;
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                                                                                                             Pajusola
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
DNA encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             can therefore be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mouse;
air; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     624;
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growth facto

factor B (VEGF-B)
used to promote bo

discloses a use for human vascular endothelial
-B) in the stimulation of angiogenesis in bone, This
e bone growth, stimulate the healing of breaks or
implant to the bone and to alleviate inflammation in

The present Disclosure;

invention Page

36-37;

43pp;

English

fractures,

secure

an implant

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                                                          Use of a polypeptide having the biological activity of vascular endothelial growth factor-B for stimulating angiogenesis of bone, healing of bone fractures and enhancing acceptance of an implant bone
                                                                                                                                                                                                                                                                                                                                                                                     angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 624 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as anglogenesis is required by tumours as they need
                                                                                                                                                                                                                                                                                                                 02-NOV-2000
                                                                                                                                                                                                                                                                                                                                         WO200064261-A1
                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                   Human; vascular endothelial growth factor; VEGF-B; bone growth;
                                                                                                                                                                                                                                                                                                                                                                                                                          Human vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAC81776;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAC81776 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           endothelial cells and for stimulating angiogenesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence (VEGF)-B186. VEGF pro
                                                                                                                                                                                                       Aase
                                                                                                                                                                                                                              (LUDW-) LUDWIG INST CANCER RES.
                                                                                                                                                                                                                                                                 26-APR-1999;
                                                                                                                                                                                                                                                                                        26-APR-2000; 2000WO-US11096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              new blood
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ctgggcagcaccaagtccggatgcagatcc 30
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                                                                                                                                                                    2001-015797/02.
DB; AAB36296.
                                                                                                                                                                                                      K, Kaipainen
                                                                                                                                                                                                                                                                                                                                                                 sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            supplies to grow and proliferate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fig 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                      neovascularisation; bone break; inflammation; ds
                                                                                                                                                                                                                                                                 99US-0130935
                                                                                                                                                                                                                                                                                                                                                                                                                        endothelial growth factor VEGF-B186 coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    124 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          52pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      proteins
                                                                                                                                                                                                       A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89.3%;
93.3%;
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                                                                                                                                                                                                       Olofsson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  624
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    213 C; 173 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    es murine vascular endothelial growth are used for promoting proliferation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
Pred.
                                                                                                                                                                                                                              LTD.
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                                                                                                                                                                                                      В,
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No. 0.
                                                                                                                                                                                                       Alitalo
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                                                                                                                                                                                                       Eriksson
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Partial

VEGF-B

coding sequence

28-APR-1997

(first entry)

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                                                                                                    RESULT
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Best Local
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Best Local
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                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention discloses a use for human vascular endothelial growth factor B (VEGF-B) in the station of angiogenesis in bone. This can be used to promote bone growth, stimulate the healing of breaks or fractures, secure an implant to the bone and to alleviate inflammation in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                   AAT37909;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Use of a polypeptide having the biological activity of vascular endothelial growth factor-B for stimulating angiogenesis of bone, healing of bone fractures and enhancing acceptance of an implant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aase
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                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Murine vascular endothelial growth factor VEGF-B186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAC81777 standard;
                                                          AAT37909 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (LUDW-) LUDWIG INST CANCER RES
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                                                                                                                                                                                     1 ctgggcagcaccaagtccggatgcagatcc 30
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                                                                                                                                                                 ctgggcaacaccaagtccgaatgcagatcc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      vascular endothelial growth
                                                                                                                                                                                                                                                  l Similarity
28; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kaipainen A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 38-39; 43pp; English.
                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                          cDNA;
                                                                                                                                                                                                                                                                     89.3%;
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93.3%;
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                                                                                                                                                                                                                                                                                                                                                        Α,
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                                                                                                                                                                                                                                                                                                                                                        213
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                                                             886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 26.8; DI
Pred. No. 0.05:
0; Mismatches
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                                                          ΒP
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                                                                                                                                                                                                                                                                                                                                                        G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  factor; VEGF-B; bone gro
bone break; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>ი</u>
                                                                                                                                                                 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alitalo K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         114 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                        114 T; 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           coding sequence
                                                                                                                                                                                                                                                                                             624;
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This represents a fragment of the mouse embryo vascular endothelial CC growth factor-B (VEGF-B) protein coding sequence. The encoded proteins CC (and AAW04826-W04831) represent the VEGF proteins of the invention, and CC promote endothelial or mesodermal cell proliferation. VEGF is also a CC glycosylated cationic dimer, and is sometimes referred to as vascular CC permeability factor (VPF). VEGF has diverse effects, depending on the CC specific biological context in which it is found. VEGF is a potent CC endothelial cell mitogen, and directly contributes to induction of CC anglogenesis in vivo by promoting endothelial cell growth during normal CC embryonic development, wound healing, and tissue
CC regeneration/reorganisation. The VEGF proteins of the invention share CC the anglogenic and other properties of VEGF, but are distributed and CC expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate angiogenesis in wound healing. Antibodies against CC the proteins can be used for inhibiting angiogenesis. The antibodies CC can also be used diagnostically to quantitatively detect VEGF-B.

CC constitution can also be used to detect VEGF-B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (LUDW-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-DEC-1995;
01-MAR-1995;
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retarded using antisense sequences direct against sequences, this is especially useful in retarding
                                                               Quantification of VEGF-B in cancer biopsy specimens may be useful indicator of metastatic risk. VEGF-B expression in a cell can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alitalo
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HELSINKI LICENSING
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95US-0397651.
95US-0469427.
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/product= Second reading
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                                    VEGF-B expression in a cell can ences direct against the VEGF cod
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Query Match Best Local Similarity

89.3%; 93.3%;

Score Pred.

No.

.8; DB

17;

Length 886;

Sequence 886

BP;

227

A; 261

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226

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01-MAR-1995;
06-JUN-1995;
                              The present sequence encodes murine vascular endothelial growth factor (VEGF)-B. The nucleic acid sequence is translated in two different reading frames. The proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need new blood employed.
                                                                                                                                                                                                                                                                                                                (LUDW-)
                                                                                                                                                                                                     Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferati and raising antibodies to inhibit activities in e.g. tumours
                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-1996;
                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                      P-PSDB;
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 Sequence 886
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                       supplies to
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 BP;
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95US-0469427.
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/note= "encodes /
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/note= "encodes /
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                                                                                                                                                                              52pp; English.
227 A; 261 C;
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angiogenesis; tissue growth; organ repair; ss
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226 G;
                       proliferate.
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172 T; 0 other
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RESULT 1
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Best Local S
Matches 28
                                                                                                                                                                                                                                         22-DEC-1995;
02-MAR-1995;
20-NOV-1995;
               VRF169 cDNA (AAT13810) codes for a murine homologue (AAW00864) of an alternatively spliced variant (AAW00726) of human vascular endothelial growth factor-like polypeptide SoM175 (see also AAW00725), a protein capable of inducing astroglial proliferation and of promoting neural survival and/or proliferation. It was obtd. from a new-born mouse brain cDNA library using SOM175 cDNA (see also AAT33610) as probe. The murine VRF gene maps near to the centromere of chromosome 19. It is highly expressed in embryo tissue and in the heart and brown fat of adult mice. VRF169 lacks exon 6, found in VRF186 cDNA (AAT13809).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAT13810;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Key
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                                                                                                           Example 5; Fig 9; 113pp; English.
                                                                                                                             survival
                                                                                                                                       New growth useful for
                                                                                                                                                                  P-PSDB;
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                                                                                                                                                                                             Weber
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95AU-0001457.
95AU-0006647.
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/note= "polymorphic
1085..1090
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                                                                                                                                      elated to vascular endothelial growth factor astroglial proliferation and promoting neuro
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93.3%;
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Pred. No. 0.
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                                                                                                                                      promoting neuronal
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Sequence

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other

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RESULT 14
AAT13809
ID AAT13809
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02-MAR-1995;
20-NOV-1995;
      VRF186 cDNA (AAT13809) codes for the murine homologue (AAW00863) of human vascular endothelial growth factor-like polypeptide SOM175 (AAW00725), a protein capable of inducing astroglial proliferation and of promoting neural survival and/or proliferation. It was obtd. from a new-born mouse brain cDNA library using SOM175 cDNA (see also AAT33610) as probe. The murine VRF gene maps near to the centromere of chromosome 19. It is highly expressed in embryo tissue and in the heart and brown fat of adult mice. An alternatively
                                                                                                                                                                                                                                                                New growth useful for
                                                                                                                                                                                                                                                                                                                                                                                         Grimmond S, Weber G;
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                                                                                                                                                                                                                                                              factor related to vascular endothelial growth factor inducing astroglial proliferation and promoting neuro
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RESULT :
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                      The invention relates to human vascular endothelial growth factor 3 (VEGF-3, AAY94802), a splice variant of human VEGF-3 (AAY94806), and nucleic acids encoding them (AAA15748, AAA15762). The cDNA encoding VEGF-3 was initially isolated from a bone marrow cell line cDNA library. The cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in that the A at position 498 in AAA15748 is not present in AAA15748. It is also expressed in colon, heart, kidney and ovary tissues, this pattern being consistent with vascular and lymphatic specific expression. VEGF-3 proteins and nucleotides are useful in preventing, treating or ameliorating various disorders and conditions associated with the vascular and lymphatic systems. These conditions and disorders include cancer, wounds, autoimmune diseases, HIV, inflammation and heart classes VEGF-3 may also be used to identify its own binding partners. VEGF-3 nucleotides are useful as diagnostic or prognostic markers and as an alternative to restriction fragment length polymorphism (RFLP). The nucleotides are also useful to prepare PCR primers for amplifying an isolating selected DNAs. Sequences AAA15763-A15880 represent DNA sequences encoding homologues of human VEGF-3 from human, mouse and rat.
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                                                                                                                                                                                                                                                                                                                                   New human gene encoding vascular endothelial growth factor 3 and polypeptide encoded by the gene is useful for treating various disorders associated with vascular and lymphatic system -
                                                                                                                                                                                                                                                                                                                                                                                            WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vascular expression; lymphatic; bone marrow; colon; heart; kldney; ov cancer; wounds; autoimmune disease; HIV; inflammation; heart disease;
                                                                                                                                                                                                                                                                                                     Disclosure; Page 137–138; 209pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HUMA-) HUMAN GENOME SCI INC
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10-FEB-1999;
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99US-0244694
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lymphatic; bone marrow;
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Pred. No. 0.05
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on; heart disease; ds.
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Sequence 445 BP;

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C glycosylated cationic dimer, and is sometimes referred to as vascular c permeability factor (VPF). VEGF has diverse effects, depending on the specific biological context in which it is found. VEGF is a potent c endothelial cell mitogen, and directly contributes to induction of C angiogenesis in vivo by promoting endothelial cell growth during normal c embryonic development, wound healing, and tissue c regeneration/reorganisation. The VEGF proteins of the invention share C the angiogeneic and other properties of VEGF, but are distributed and c expressed in tissues differently to VEGF, but are distributed and c expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate angiogenesis in wound healing. Antibodies against the C proteins can be used for inhibiting angiogenesis. The antibodies can calso be used diagnostically to quantitatively detect VEGF-B. Primers C complementary to the coding sequences for the proteins of the invention C can also be used to detect VEGF-B coding sequences. Quantification of C can also be used to detect VEGF-B expression in a cell can be retarded using contisence sequences direct against the VEGF can be retarded using sequences of the coding sequences, this is
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01-MAR-1995;
06-JUN-1995;
                                                                                                                                                                                                                                                                                                    endothelial growth factor (VEGF) proteins of the invention, which pro
endothelial or mesodermal cell proliferation. VEGF is also a
glycosylated cationic dimer, and is sometimes referred to as vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Endothelial cell; proliferation; vascular endothelial growth factor; VPF VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody;
                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 56; 107pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                          accelerate angiogenesis in wound heand antibodies for cancer diagnosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAT37911 standard;
              especially useful in retarding
                                                                                                                                                                                                                                                                                                                                                          AAT37909-T37915 represent the coding sequences for the vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Adult heart VEGF-B174 coding sequence.
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DB; AAW04827.
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95US-0397651.
95US-0469427.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 86.7%;
100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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Pred. No.
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                 VEGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cell; mouse;
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                                                                                                                                                                                                                                                                                                                                                                                                                                              healing,
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              expression
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                                                                                                                                                                                                                                                                                                                                                                                                                                              proteins - useful to also related nucleic
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              tumour
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Best Local S
Matches 26
                                                                                                                                                                                                                                                                                                            01-MAR-1996;
01-MAR-1995;
06-JUN-1995;
06-DEC-1995;
                           The present sequence encodes murine vascular endothelial growth factor (VEGF)-B174. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                        Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                                                                                                      Claim
                                                                                                                                                                                                                       P-PSDB; AAW80491.
                                                                                                                                                                                                                                                       Alitalo K,
                                                                                                                                                                                                                                                                          (LUDW-)
                                                                                                                                                                                                                                                                                                                                                                   01-MAR-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               endothelial growth factor; VEGF;
ial cell; angiogenesis; tissue gro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          591 BP; 126
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                    supplies
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                                                                                                                                                                                                                                                       Eriksson
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95US-0397651.
95US-0469427.
95US-0569063.
                                                                                                                                                                                                                                                                                       INST CANCER RES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                 52pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                     /product= VEGF-B174
                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag=
                     6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vascular endothelial growth factor (VEGF)-B174.
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86.7%;
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                   grow
                                                                                                                                                   English.
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                     and
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Pred.
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                    proliferate
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No. 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               growth; organ repair;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         proliferation; mouse;
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Query Match

78

Score

23

6;

DB

20;

Length 591;

Sequence

591

BP;

126

Α.

186

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174

<u>ن</u>

105

₽.

В

52 gggaacaccaagtccgaatgcagatcc

78

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CC (VEGF-3) was initially isolated from a bone marrow cell line cDNA encoding consistent with variant VEGF-3 differs from sequence AAA15748 in CC The cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in CC That the A at position 498 in AAA15748 is not present in AAA15762 VEGF-3 consistent with vascular and lymphatic specific expression. VEGF-3 consistent with vascular and lymphatic specific expression. VEGF-3 consistent with vascular and lymphatic specific expression. VEGF-3 consistent with vascular and lymphatic specific expression. VEGF-3 concerns and nucleotides are useful in preventing, treating or consistent with vascular and tymphatic systems. These conditions associated with the concern wounds, autoimmune diseases, HTV, inflammation and heart concern. VEGF-3 may also be used to identify its own binding partners. CC vegf-3 nucleotides are useful as diagnostic or prognostic markers and as concleotides are also useful to prepare PCR primers for amplifying an concleotides are also useful to prepare PCR primers for amplifying an consisting selected DNAs. Sequences AAA15763-A15880 represent DNA cc sequences encoding homologues of human VEGF-3 from human, mouse and rat.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vascular endothelial growth factor 3; VEGF-3; homologue; vascular expression; lymphatic; bone marrow; colon; heart; kidney; ovary; cancer; wounds; autoimmune disease; HIV; inflammation; heart disease; ds.
                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to human vascular endothelial growth factor 3 (VEGF-3, AAY94802), a splice variant of human VEGF-3 (AAY94806), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human gene encoding vascular endothelial growth factor 3 and polypeptide encoded by the gene is useful for treating various disorders associated with vascular and lymphatic system -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-AUG-1998;
10-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 139-140;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hu J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-AUG-1999;
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nes 24; Conserv
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                                                                                                                                BP;
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99US-0244694.
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                                                                                                                              A; 135 C; 123 G;
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                                                              74.0%;
88.9%;
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                                                              Score 22.2;
Pred. No. 4.
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                                                                                                                                                                                      RESULT
AAA15881
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                                                                                  Matches
                                                                                                                                                                                      Sequence 389
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New human gene encoding vascular endothelial growth factor polypeptide encoded by the gene is useful for treating varidisorders associated with vascular and lymphatic system -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-AUG-1998;
10-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vascular endothelial growth factor 3; VEGF-3; splice variant; homology vascular expression; lymphatic; bone marrow; colon; heart; kidney; ovacancer; wounds; autoimmune disease; HIV; inflammation; heart disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA15881;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hu J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (HUMA-) HUMAN
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                     7 agcaccaagtccggatgcagatcc
aacaccaagtccgaatgcagatcc
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                                                                                                   Similarity
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                                                                                  Conservative
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91.7%;
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Pred. No. 17;
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                                                                                                                             389;
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RESULT

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2001W0-US01354. 2000US-0116025. 2000US-0118650. 2000US-0118650. 2000US-0118650. 2000US-0118974. 2000US-0118974. 2000US-0118974. 2000US-0118974. 2000US-0118974. 2000US-0118974. 2000US-0118974. 2000US-011899. 2000US-01	<pre>tandard; DNA; 2002 BP.  1 (first entry) 1 (first entry) ne/haematopoietic antigen genomic sequence SEQ ID NO:21118. une; haematopoietic; immune/haematopoietic antigen; cancer; ; gene therapy; vaccine; metastasis; ds. ns. 2-A2.</pre>
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Best Local
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05-DEC-2000;
06-DEC-2000;
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08-DEC-2000;
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                                                                                                                     Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
cytostatic; gene therapy; vaccine; metastasis; ds.
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   17-JAN-2001; 2001WO-US01354.
                                 09-AUG-2001
                                                                                                                                                              Human immune/haematopoietic antigen genomic sequence SEQ ID NO:21119
                                                                                                                                                                                                                                                       AAK66307
                                                             WO200157182-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2002 BP;
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85.2%;
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04-FEB-2000;
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02-MAR-2000;
16-MAR-2000;
17-MAR-2000;
             2000US-0234998.

2000US-0235484.

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2000US-0235836.

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2000US-0224519
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2000US-0218290
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metastasis

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13-OCT-2000;
20-OCT-2000;
20-NOV-2000;
20-NO
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02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
  Nucleic acids encoding useful for preventing,
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2000US -0237038

2000US -0237039

2000US -023935

2000US -023935

2000US -0241785

2000US -0241808

2000US -0241808

2000US -0246476

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human immune/hematopoietic antigen polypeptides, diagnosing and/or treating cancers and
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Best Local S
Matches 23
31-JAN-2000

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24-FEB-2000

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16-MAR-2000

11-MAR-2000

11-MAR-2000

19-MAY-2000

07-JUN-2000

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07-JUL-2000

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cytostatic; gene therapy; vaccine; metastasis; ds.
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23; Conserv
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               2000US-0119874
2000US-0190076
2000US-0198123
2000US-0205515
2000US-0205486
2000US-0214886
2000US-0215135
2000US-0215435
2000US-0216880
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2000US-0180628.
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CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic cactivity, and can be used in gene therapy and vaccine production. (I) cyroteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For ce example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome cc that affect the activity of (I) by expressing inactive proteins or to csupplement the patients own production of (I). Additionally, (I) cpolynucleotides may be used to produce the secreted (I), by inserting the nucleic acids into a host cell and culturing the cell to express the crotein. (I) proteins and polynucleotides may be used to protein. (Cc diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic derived cells. AAK64703 to AAK87694 represent human immune/haematopoietic antigen genomic
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RESULT :
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Best Local Similarity 85.3
Matches 23; Conservative
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02-MAR-2000;
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07-JUL-2000;
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28-JUN-2000;
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cytostatic; gene therapy; vaccine; metastasis; ds.
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SEQ ID NO:28156. antigen; cancer;

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RESULT 24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis -
                AAK73344 standard; DNA; 22680 BP
                                                                                                                                                                                                      Sequence 22680 BP; 4444 A; 6635 C; 7046 G; 4555 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure;
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                                                                                                                                                Local Similarity
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85.2%;
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                                                                                                                                  Score 20.6; I
Pred. No. 40;
0; Mismatches
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                                                                                                                                                              DB 22;
                                                                                                                                                            Length 22680;
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07-JUL-2000;
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11-JUL-2000;
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04-FEB-2000

24-FEB-2000

24-FEB-2000

10-MAR-2000

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11-MAR-2000

07-JUN-2000

28-JUN-2000
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cytostatic; gene therapy; vaccine; metastasis; ds.
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 2000US-0179065
2000US-0188628
2000US-01886350
2000US-018874
2000US-0198123
2000US-0198123
2000US-0198123
2000US-0216846
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2000US-0233398
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27-SEP-2000
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2000US-0234998.
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2000US-0236807.
2000US-0237039.
2000US-0237039.
2000US-0241785.
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2000US-0241786.
2000US-0241809.
2000US-0241809.
2000US-024677.
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2000US-0246611.
2000US-024661.
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2000US-0233063
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AAK73625/
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16682 ggcagcaccatgtcctcatggagatcc 16708
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  31-JAN-2000; 2000US-0179065
04-FEB-2000; 2000US-0180628
                                                                                                                                                                                                                                                                                                                  Human immune/haematopoietic antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAK73625
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                                                                    17-JAN-2001; 2001WO-US01354
                                                                                                                                                                                                                                                  cytostatic;
                                                                                                                                                                                                                                                                          Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
                                                                                                                                                                                                                                                                                                                                                              07-NOV-2001 (first entry)
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2000US-0251868.
2000US-0251869.
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                                                                                                                                                                                                                                                therapy; vaccine; metastasis;
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85.2%;
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Pred. No. 4
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DB 22; 4.

Length 22680; Indels

and

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Gaps

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24-FEB-2000 02-MAR-2000; 16-MAR-2000; 17-MAR-2000; 19-MAY-2000; 07-JUN-2000; 28-JUN-2000; 30-JUN-2000; 07-JUL-2000; 07-JUL-2000; 11-JUL-2000; 11-JUL-2000; 11-JUL-2000; 11-JUL-2000; 11-JUL-2000; 11-JUL-2000; 26-JUL-2000; 26-JUL-2000;

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02-OCT 2000
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20-OCT                           Nucleic acids encoding useful for preventing, metastasis -
 Disclosure;
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                                                                                                          CA,
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                                                                                                          Barash
SEQ ID NO 28437; 3071pp + Sequence Listing; English.
                                                                                                                                                               2000US-0237039
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                                        human immune/hematopoietic diagnosing and/or treating
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                                                                                                            NS.
                                        antigen polypeptides, cancers and
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2000US-0184664 2000US-0189350 2000US-0199076 2000US-0199173 2000US-0219467 2000US-0211880 2000US-0211880 2000US-0211880 2000US-0217487 2000US-0217487 2000US-0217487 2000US-0217487 2000US-0217487 2000US-0217487 2000US-021751 2000US-021751 2000US-021751 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-021752 2000US-0217668 2000US-0217668 2000US-0217668 2000US-0217668 2000US-0217668 2000US-021768 200US-021768 2000US-021768 2000US-021768 2000US-021768 2000US-02176

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RESULT 26
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic cativity, and can be used in gene therapy and vaccine production. (I) CC proteins and polynucleotides may be used in the prevention, diagnosis and CC treatment of diseases associated with inappropriate (I) expression. For CC example, they may be used to treat disorders associated with decreased CC expression by rectifying mutations or deletions in a patient's genome CC that affect the activity of (I) by expressing inactive proteins or to CC supplement the patients own production of (I). Additionally, (I) CC polynucleotides may be used to produce the secreted (I), by inserting CC the nucleic acids into a host cell and culturing the cell to express the CC protein. (I) proteins and polynucleotides may be used to prevent, CC diagnose and treat immune/haematopoietic-related diseases, especially CC cancers and cancer metastases of haematopoietic antigen genomic concerns the present human immune/haematopoietic antigen genomic concerns sequences used in the exemplification of the present invention. AAK5492 to AAK54950 and AAM82169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Ma
Best Loc
Matches
31 - JAN - 2000

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24 - FEB - 2000

02 - MAR - 2000

16 - MAR - 2000

17 - MAR - 2000

18 - AFR - 2000

19 - MAY - 2000

07 - JUN - 2000

07 - JUL - 2000

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                                                                                                                                                                                                                                                                                                                                                                                    Human;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAK73847 standard; DNA; 22680
                                                                                                                                                                                                                                                                                               09-AUG-2001
                                                                                                                                                                                                                                                                                                                      WO200157182-A2
                                                                                                                                                                                                                                                                                                                                                                      cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                        Human immune/haematopoietic antigen genomic sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAK73847;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ggcagcaccaagtccggatgcagatcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAGCACCATGTCCTCATGGAGATCC 5973
                                                                                                                                                                                                                                                                                                                                                                    immune; haematopoietic; immune/haematopoietic
atic; gene therapy; vaccine; metastasis; ds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 85.2
23; Conservative
 2000US-018664
2000US-018974
2000US-0199076
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AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I) and no acid sequences given in AAM82170 to AAM91921. (I) have cytostatic activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased expression by rectlifying mutations or deletions in a patient's genome that affect the activity of (I) by expressing inactive proteins or to supplement the patients own production of (I). Additionally, (I) concluded the patients own production of (I). Additionally, (I) concluded acids into a host cell and culturing the cell to express the protein. (I) proteins and polynucleotides may be used to produce the secreted (I), by inserting the nucleic acids into a host cell and culturing the cell to express the protein. (I) proteins and polynucleotides may be used to prevent, cancers and cancer metastases of haematopoietic-derived cells. AAK64703 to AAK87694 represent human immune/haematopoietic antigen genomic sequences from the present invention. AAK64920 and AAM82169 represent sequences used in the exemplification of the present invention.
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85.2%;
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Pred. No. 40;
0; Mismatches
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05-SEP-2000 06-SEP-2000 06-SEP-2000 06-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 11-SEP-2000 
2000US-0230438. 2000US-0231242. 2000US-0231243. 2000US-0231244.

2000US-0229509. 2000US-0229513. 2000US-0230437.

2000US-0232080. 2000US-0232081. 2000US-0231968. 2000US-0232397. 2000US-0232398.

14-SEP-2000; 14-SEP-2000; 14-SEP-2000;

2000US - 0232399 2000US - 0232400 2000US - 0232401 2000US - 0233063 2000US - 0233064 2000US - 0233065 2000US - 0234223 2000US - 0234223 2000US - 0234274 2000US - 0234274

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RESULT 2
AAK78350
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                                                                                                                                                                                                                                                                                 CC AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I) CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic contivity, and can be used in gene therapy and vaccine production. (I) CC proteins and polynucleotides may be used in the prevention, diagnosis and ctreatment of diseases associated with inappropriate (I) expression. For CC example, they may be used to treat disorders associated with decreased CC expression by rectifying mutations or delations in a patient's genome CC that affect the activity of (I) by expressing inactive proteins or to CC supplement the patients own production of (I). Additionally, (I) CC collynucleotides may be used to produce the secreted (I), by inserting CC the nucleic acids into a host cell and culturing the cell to express the CC protein. (I) proteins and polynucleotides may be used to prevent, CC cancers and cancer metastases of haematopoietic active proteins and cancer metastases of haematopoietic antigen genomic CC cancers and cancer metastases of haematopoietic antigen genomic CC sequences from the present invention. AAK54942 to AAK5450 and AAM62169 CC represent sequences used in the exemplification of the present invention.
                                                                                                                                                                                    Query Match
Best Local Similarity 85.3
Matches 23; Conservative
                                                                                                                              16682 ggcagcaccatgtcctcatggagatcc 16708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-DEC-2000
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17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               useful for metastasis
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 07-NOV-2001
                              AAK78350;
                                                       AAK78350
                                                                                                                                                                                                                                                            Sequence 22680 BP;
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17-NOV-2000;
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                                                       standard;
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2000US -0249217.
2000US -0249214.
2000US -0249244.
2000US -0249245.
2000US -0249265.
2000US -0249297.
2000US -0249297.
2000US -0259391.
2000US -0259391.
2000US -0251988.
2000US -0251988.
2000US -0251866.
2000US -0251866.
2000US -0251869.
2000US -0251869.
2000US -0251869.
2000US -0251989.
2000US -0251989.
2000US -0251989.
2000US -0251999.
(first entry)
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                                                         DNA; 22680
                                                                                                                                                                                                  68.7%;
85.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human immune/hematopoietic antigen polypeptides, diagnosing and/or treating cancers and
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Pred. No. 40;
0; Mismatches
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X
Human; immune/haematopoietic antigen Human; immune; haematopoietic; immu cytostatic; gene therapy; vaccine; gene thera
igen genomic sequence SEQ ID NO:33162. immune/haematopoletic antigen; cancer; ne; metastasis; ds.
קרים של היה היה היה היה היה היה היה היה היה הי
14 - SEP-2000; 21 - SEP-2000; 22 - SEP-2000; 25 - SEP-2000; 26 - SEP-2000; 27 - SEP-2000; 29 - SEP-2000; 29 - SEP-2000; 29 - SEP-2000; 29 - SEP-2000; 29 - SEP-2000; 20 - CCT-2000; 20 - CCT-2000; 21 - CCT-2000; 22 - CCT-2000; 23 - CCT-2000; 24 - CCT-2000; 25 - CCT-2000; 26 - CCT-2000; 27 - CCT-2000; 28 - CCT-2000; 29 - CCT-2000; 20 - CCT-2000; 20 - CCT-2000; 20 - CCT-2000; 21 - CCT-2000; 20 - CCT-2000; 21 - CCT-2000; 20 - CCT-2000; 21 - CCT-2000; 21 - CCT-2000; 22 - CCT-2000; 23 - CCT-2000; 24 - CCT-2000; 25 - CCT-2000; 26 - CCT-2000; 27 - CCT-2000; 28 - NOV-2000; 29 - CCT-2000; 20 - CCT-2000; 20 - CCT-2000; 21 - NOV-2000; 21 - CCT-2000; 22 - CCT-2000; 23 - CCT-2000; 24 - CCT-2000; 25 - DEC-2000; 26 - DEC-2000; 27 - CCT-2000; 28 - DEC-2000; 29 - CCT-2000; 20 - CCT-2000; 20 - CCT-2000; 21 - NOV-2000; 21 - N
2000US -0233065 2000US -023423 2000US -0234498 2000US -0235484 2000US -0235836 2000US -0235836 2000US -0235836 2000US -0236366 2000US -0236367 2000US -0236367 2000US -0236367 2000US -023637 2000US -023637 2000US -023637 2000US -0237038 2000US -0237039 2000US -024180 2000US -024180 2000US -024180 2000US -024180 2000US -024617 2000US -024617 2000US -024675 2000US -024676 2000US -024676 2000US -024676 2000US -024676 2000US -024676 2000US -024676 2000US -024677 2000US -024678 2000US -0249211 2000US -02

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
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Best Local S
Matches 23
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04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
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                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                 Human;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                metastasis
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                                                                                                                                                                                                                                                                                                                                                                                                                               foetal liver single exon nucleic acid probe #19287.
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                                                                                                                                                                                                                                                                                                                                                                              foetal liver;
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23; Conservative
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2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-0236359.
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2000US-0251990.
2000US-0254097.
2000US-0259678.
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Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directions.
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Single exon nucleic acid hearts -
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27-SEP-2000;
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           The present invention providés a number of single exon nucleic probes which are derived from genomic sequences expressed in the brain. They can be used to measure gene expression in brain cel
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27-SEP-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 probes are useful for predicting, diagnosing, grading, staging, monitoring and prognosing diseases of the human heart and vascue.g. cardiovascular disease, hypertension, cardiac arrhythmias
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         single exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                   probe SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19.6;
No. 50;
  improved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25
                                                                                analyzing
                                                                                                                         DR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
  treatment of nervous
                                                                                                                                                                                                                                                                                                                                                                    ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4;
                                                                                 gene
          expressed in the human ion in brain cell sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                    19249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene expression,
                                                                                 expression
                                                                                                                                                                                                                                                                                                                                      schizophrenia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    part of the printed directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         acid
                                                  English
                                                                                                                                                                                                                                                                                                                                                probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         probes for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                 'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              heart.
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  system
                                                                                  human
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В Q

62

4

ggcagcaccaagtccggatgcagatc ggcagcaccaagcccgggtggagctc

29

Matches

l Similarity 22; Conserv

Conservative

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Mismatches

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Best Local S
Matches 22
    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    epilepsy a invention.
                                                     probes which are derived from genomic sequences expressed in the human bone marrow. They can be used to measure gene expression in bone marrow samples, which may enable the improved diagnosis and treatment of cancer such as lymphoma, leukaemia and myeloma. The present sequence is one of the probes of the invention.
                                                                                                  The
                                                                                                                                                                            Penn
                                                                                                                                                                                                                                      30-JUN-2000;
03-AUG-2000;
                                                                                                                                                                                                                                                       04-FEB-2000;
26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                   Human; bone marrow expressed exon; gene expression analysis; probe; microarray; cancer; leukaemia; lymphoma; myeloma; ss.
                                     Sequence
                                                                                                                Example
                                                                                                                                 analyzing
                                                                                                                                                                                                               04-OCT-2000;
                                                                                                                                                                                                                                                                                30-JAN-2001;
                                                                                                                                                                                                                                                                                                 09-AUG-2001.
                                                                                                                                                                                                                                                                                                                  WO200157276-A2
                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                              06-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                              AAK45228;
                                                                                                                                                                                                                                                                                                                                                                                                                              AAK45228 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                             (MOLE-)
                                                                                                                                                                                                                              21-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62
                                                                                                                                                                                                                                                                                                                                                                                                                                                32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 ggcagcaccaagtccggatgcagatc 29
                                                                                                  present
                                                                                                                                                                            SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ggcagcaccaagcccgggtggagctc
                                                                                                                                                           2001-488900/53.
                                                                                                                                 genome-derived single exon nucleic zing gene expression in human bone m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity 84.0
22; Conservative
                                                                                                                 4; SEQ ID NO:
                                                                                                                                                                                             MOLECULAR
                                      197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             such as Alzheimer's disease, multiple sclerosis, schizophrenia, and cancers. The present sequence is one of the probes of the
                                                                                                                                                                            Hanzel
                                                                                                                                                                                                                                                                                                                                                                             marrow
                                                                                                                                                                                                             2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-02346359.
2000US-0236359.
                                                                                                 invention provides a number of single
                                     BP;
                                                                                                                                                                                                                                                                                 2001WO-US00668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP;
                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                     54
                                                                                                                                                                            DK,
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                                                                                                                                                                                             DYNAMICS
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                                     Α,
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   65.3%;
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                                                                                                                 19785; 658pp + Sequence Listing;
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                                     C;
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    Score
Pred.
                                      73
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No.
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marrow -
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            22;
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            Length
                                                                                                 exon nucleic
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                                                                                                                                           useful
                                                                                                                                                                                                                                                                                                                                                                              NO:
                                                                                                                  English
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              197;
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is one of
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RESULT 34
AAI51179
ID AAI511
XX
AC AAI511
XX
DT 17-OCT
XX
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                                                                                                          Query Match
Best Local S
Matches 22
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21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                  The present invention relates to human single exon nucleic acid probes (SENP). The present sequence is one such probe. The SENPs are derived from human HeLa cells. The SENPs can be used to produce a single exon microarray, which can be used for measuring human gene expression in a sample derived from human cervical epithelial cells. By measuring gene expression, the probes are therefore useful in grading and/or staging of diseases of the cervix, notably cervical cancer.
                                                                                                                                                             Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                         Human genome-derived single exon nucleic acid probes useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Probe; human; microarray;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAI25200;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAI25200 standard;
        17-OCT-2001
                                      AAI51179
                                                                                                                                               Sequence 197
                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                  analyzing
                                                                                                                                                                                                                                                                                                         Penn
                                                                                                                                                                                                                                                                                                                                       04 -OCT - 2000;
                                                                                                                                                                                                                                                                                                                                                                     26-MAY-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                     04-FEB-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200157278-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-OCT-2001
                       AAI51179;
                                                                                                                                                                                                                                                                                                                        (MOLE-)
                                                                             62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     33
                                                                                           4
                                                                          ggcagcaccaagcccgggtggagctc
                                                                                  ggcagcaccaagtccggatgcagatc
                                                                                                                                                                                                                                                                                                        SG,
                                                                                                                                                                                                                                                                                           2001-488901/53.
                                                                                                                                                                                                                                                    25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #15133
                                                                                                         Similarity 84.0
22; Conservative
                                                                                                                                                                                                                                                                                                                        MOLECULAR DYNAMICS
                                      standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancer;
                                                                                                                                                                                                                                                   SEQ ID No 15133; 487pp;
                                                                                                                                                                                                                                                                  gene expression
                                                                                                                                                                                                                                                                                                        Hanzel DK,
                                                                                                                                                                                                                                                                                                                                      2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0632368.
2000US-0234687.
2000US-02346359.
2000US-0024263.
                                                                                                                                               ВP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
        (first
                                                                                                                                               54 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA;
                                      DNA;
                                                                                                                 65.3%;
                                                                                                                                                                                                                                                                                                        Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        expression
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                                       197
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                                                                                                                                                                                                                                                                  in human cervical epithelial cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene expression; cervical epithelial cell;
                                                                                                                                                                                                                                                                                                                        INC
                                                                                                        Score 19.6; D
Pred. No. 50;
0; Mismatches
                                                                                                          0
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                                       ΒP
                                                                                                                                               73
                                                                                                                                                                                                                                                                                                          Rank
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                                                                                                                                               <u>ن</u>
                                                                                           29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        analysis in human
                                                                                                                                                                                                                                                    English.
                                                                                                                                               25 T; 0 other;
                                                                                                                                                                                                                                                                                                          DR;
                                                                                                                         DВ
                                                                                                                         22;
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                                                                                                                       Length
                                                                                                          Indels
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Best Local S
Matches 22
                                                                                                        Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            genetic
                                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                              analyzing
                                                                                                                                                                                                                                                                                                                                                      Human
                                                                           Homo
                                                                                          Human;
                                                                                                                                        АВА58386;
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04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to single exon nucleic acid probes The present sequence is one such probe. The probes are useful for producing a microarray for predicting, measuring and displaying expression in samples derived from human placenta. The probes are for antenatal diagnosis of human genetic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Probe
                                                                                                                                                                                                                                01-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-JAN-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Probe; microarray;
                                                        30-JAN-2001;
                                                                                     09-AUG-2001
                                                                                                                WO200157277-A2
                                                                                                                                                                                                                                                                                      ABA58386 standard;
                                                                                                                                                                                                                                                                                                                                                                         4 ggcagcaccaagtccggatgcagatc
                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                            ggcagcaccaagcccgggtggagctc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001-488897/53.
                                                                                                                                                                                                  foetal liver single exon nucleic acid probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      genome-derived single exon nucleic acid ring gene expression in human placenta -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #19865 used
                                                                                                                                                                       foetal
                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
22; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hanzel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0180312.
2000US-0207456.
2000US-068408.
2000US-0632366.
2000US-0234687.
2000US-02346859.
2000US-0236359.
2000US-0180312.
2000US-0207456.
2000US-0608408.
                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B₽;
                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US00663
                                                        2001WO-US00669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ID No 19865; 654pp; English.
                                                                                                                                                                       liver; gene expression; single exon nucleic acid probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54 A; 45 C;
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                                                                                                                                                                                                                                                                                       DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                    65.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25 T; 0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   probes useful
                                                                                                                                                                                                                                                                                                                                                                                                                      4.
                                                                                                                                                                                                     #6691.
                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   197;
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Matches 22
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21-SEP-2000;
27-SEP-2000;
04-OCT-2000;
                                                                                     30-JUN-2000;
03-AUG-2000;
21-SEP-2000;
                                                                                                                                                                                                                                            Human; gene expression; heart; microarray; vascular syste cardiovascular disease; hypertension; cardiac arrhythmia; congenital heart disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to a single exon nucleic acid probe for measuring human gene expression in a sample derived from human foetal liver. The single exon nucleic acid probes may be used for predicting measuring and displaying gene expression in samples derived from human
                                                                                                                      04-FEB-2000;
26-MAY-2000;
                                                                                                                                                       30-JAN-2001;
                                                                                                                                                                             09-AUG-2001
                                                                                                                                                                                                                                                                                          Probe #5963
                                                                                                                                                                                                                                                                                                               23-JAN-2002
                                                                                                                                                                                                                                                                                                                                                          ABA27497 standard; DNA; 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 486 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    printed specification, but was obtained in electronic
from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fetal liver. The present sequence is a single exon nucleic acid probe of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-483447/52.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MOLE-) MOLECULAR DYNAMICS INC
                                         (MOLE-)
                                                                                                                                                                                                  WO200157274-A2
                                                                                                                                                                                                                                                                                                                                                                                                               324 ggcagcaccaagcccgggtggagctc
                                                                                                                                                                                                                                                                                                                                                                                36
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2001-488899/53
                                                                                                                                                                                                                                                                                                                                                                                                                           ggcagcaccaagtccggatgcagatc
                    SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The sequence data for this patent did not form part of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      genome-derived single exon nucleic acid probes useful
zing gene expression in human fetal liver -
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
22; Conser
                                          MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ
                    Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hanzel
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                                                              2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-02346359.
2000US-0236359.
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2000US-0234687.
2000US-0236359.
2000US-0024263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                       2001WO-US00666
                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ID NO
                                                                                                                                                                                                                                                                                         gene expression analysis in human heart cell sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  132 A; 113 C; 151 G; 90 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6691; 639pp + sequence listing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     65.3%;
                    Chen
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                    Σ
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Pred. No. 58;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                     29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BB
                                                                                                                                                                                                                                                                    vascular system;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22;
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Best Local S
Matches 22
                                                                                                                                                          30-JUN-2000;
03-AUG-2000;
21-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 measuring human gene expression in a sample derived from human heart. The present sequence is one such probe. The probes may be used for predicting, measuring and displaying gene expression in samples derived from the human heart via microarrays. By measuring gene expression, the probes are useful for predicting, diagnosing, grading, staging, monitoring and prognosing diseases of the human heart and vascular system e.g. cardiovascular disease, hypertension, cardiac arrhythmias and e.g. cardiovascular disease, hypertension, cardiac arrhythmias and
                                                                                                                                                                                         04-FEB-2000;
26-MAY-2000;
                                                                                                                                                                                                                                                                                                                     Human; brain expressed exon; microarray; Alzheimer's disea
                  Example
                                                                                                                 (MOLE-)
                                                                                                                                                                                                                          30-JAN-2001;
                                                                                                                                                                                                                                               09-AUG-2001.
                                                                                                                                                                                                                                                                    WO200157275-A2
                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                            epilepsy; cancer;
                                                                                                                                                                                                                                                                                                                                                        Human brain
                                                                                                                                                                                                                                                                                                                                                                                                 AAK06491;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 486 BP; 132 A; 113 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Note: The sequence data for this patent did no specification, but was obtained in electronic at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to single exon nucleic acid probes measuring human gene expression in a sample derived from human h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         congenital heart disease
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                                                                                                                 MOLECULAR DYNAMICS INC
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                                                                                            Hanzel DK,
                  SEQ
                                                                                                                                     2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-0234687.
2000US-02346359.
                                                   nucleic
                                                                                                                                                                                                                                                                                                                                                      expressed single exon probe SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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                  ID
                    NO:
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                  6482;
                                                                                             Chen
                                                                                                                                                                                                                                                                                                                       disease;
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Pred. No.
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                                                                                            Rank
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                                                                                                                                                                                                                                                                                                                      multiple sclerosis; s
                                                  analyzing
                  Sequence Listing;
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58;
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schizophrenia;
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The present invention provides a number of single exon nucleic

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Best Local S
Matches 22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  probes which are derived from genomic sequences expressed in the human brain. They can be used to measure generation in brain cell samples which may enable the diagnosis and improved treatment of nervous system diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia, epilepsy and cancers. The present sequence is one of the probes of the
                                                                               The present invention provides a number of single exon nucleic acid probes which are derived from genomic sequences expressed in the human bone marrow. They can be used to measure gene expression in bone marrow samples, which may enable the improved diagnosis and treatment of cancers such as lymphoma, leukaemia and myeloma. The present sequence is one of the probes of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                              Penn
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26-MAY-2000;
                                                              Sequence
                                                                                                                                                        Example 4; SEQ ID NO:
                                                                                                                                                                                                                                                  (MOLE-)
                                                                                                                                                                                                                                                                        04-OCT-2000;
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27-SEP-2000;
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03-AUG-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                  WO200157276-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                         microarray;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human bone marrow expressed single exon
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         324
          Local Similarity
hes 22; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
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                                                                                                                                                                                                           2001-488900/53.
                                                                                                                                                                                     genome-derived single exon nucleic acid probes
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22; Conservative
                                                                                                                                                                                                                                                  MOLECULAR DYNAMICS INC
                                                              486
                                                                                                                                                                           gene
                                                                                                                                                                                                                              Hanzel DK,
                                                                                                                                                                                                                                                                      2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632368.
2000US-0234686.
2000US-0234685.
2000US-0236359.
2000US-0024263.
                                                                                                                                                                                                                                                                                                                                                                                                                                           cancer;
           Conservative
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                                                              BP;
                                                                                                                                                                                                                                                                                                                                                         2001WO-US00668
                                                                                                                                                                           expression
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                                                              132
                                                                                                                                                                                                                                                                                                                                                                                                                                                    expressed exon;
                                                                                                                                                                                                                                                                                                                                                                                                                                           leukaemia; lymphoma; myeloma; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entry)
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84.6%;
                                                            A; 113
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4 8
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Pred. No. 58;
0; Mismatches
          0;
                   Score 19.6;
Pred. No. 58;
                                                              151
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           Mismatches
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No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene expression analysis; probe;
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58;
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          4;
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           Indels
                                                                                                                                                                                     useful
                                                                                                                                                       English
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RESULT
AAI38021
ID AAI
XX
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B Qy

AAI38021;

AAI38021

standard;

DNA;

486

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40

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RESULT AAI15983
ID 18215983
ID 18215983
ID 18215983
AC AAI.
AXC AA
                                                                                             Query Match
Best Local Similarity
Matches 22; Conser
                                                                                                                                                                                                                                                      The present invention relates to human single exon nucleic acid probes (SENP). The present sequence is one such probe. The SENPs are derived from human HeLa cells. The SENPs can be used to produce a single exon microarray, which can be used for measuring human gene expression in a sample derived from human cervical epithelial cells. By measuring gene expression, the probes are therefore useful in grading and/or staging of diseases of the cervix, notably cervical cancer. Note: The sequence data for this patent did not form part of the printe specification, but was obtained in electronic format directly from WIPO at fig. wipo.int/pub/published_pct_sequences.
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03-AUG-2000;
21-SEP-2000;
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04-OCT-2000;
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26-MAY-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-OCT-2001
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                                                                                                                                                                                                              Sequence 486
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ggcagcaccaagcccgggtggagctc
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zing gene expression in human cervical epithelial cells
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ
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2000US-0207456.
2000US-0608408.
2000US-06323686.
2000US-0234687.
2000US-02346359.
2000US-0236359.
                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ID No 5916;
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                                                                                                                 65.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              487pp;
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                                                                                          0;
                                                                                                                   Score
Pred.
                                                                                                                                                                                                              151 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rank
  349
                                               29
                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English.
                                                                                                                      19.6;
No. 58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DR;
                                                                                                                                                                                                                90
                                                                                                                                                                                                                Τ;
                                                                                                                                          DВ
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                                                                                                                                          22;
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                                                                                                                                                                                                                other;
                                                                                               Indels
                                                                                                                                          Length
                                                                                                                                            486;
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y from WIPO
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RRESULT 4
AAVU2997,
ID AAVU2997,
AC AAVU
XX AAVU
DT 06-J
DX MUri
XX Ena-
KW Cytc
KW cytc
KW cell
XX Cell
XX Mus
XX Mus
XX Mus
XX Mus
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XX Mus
XX Mus
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                                                                                                                                                                                                           Query Match
Best Local S
Matches 22
                                                     Ena-VASP like;
cytoskeleton; c
cell growth; ce
                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
                                                                                                                                                                                                                                                                The present invention relates to single exon nucleic acid probes. The present sequence is one such probe. The probes are useful for producing a microarray for predicting, measuring and displaying expression in samples derived from human placenta. The probes are for antenatal diagnosis of human genetic disorders.
                                        Mus musculus
                                                                                    Murine Ena-VASP like (Evl) cDNA
                                                                                                     06-JUL-1998
                                                                                                                      AAV02997;
                                                                                                                                   997/c
AAV02997 standard;
                                                                                                                                                                                                                                                                                                                  Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                              04-FEB-2000;
26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Probe; microarray; human; placenta; antenatal diagnosis;
genetic disorder; ss.
                                                                                                                                                                                                                                                  Sequence 486 BP; 132
                                                                                                                                                                                                                                                                                                                                analyzing
                                                                                                                                                                                                                                                                                                                                                                        Penn
                                                                                                                                                                                                                                                                                                                                                                                                        04-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                               21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-JAN-2001; 2001WO-US00663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W0200157272-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                        (MOLE-)
                                                                                                                                                                             324
                                                                                                                                                     41
                                                                                                                                                                                    4 ggcagcaccaagtccggatgcagatc 29
                                                                                                                                                                           ggcagcaccaagcccgggtggagctc 349
                                                                                                                                                                                                                                                                                                                                                                        SG,
                                                                                                                                                                                                                                                                                                                                                       2001-488897/53.
                                                                                                                                                                                                                                                                                                                                  genome-derived single exon nucleic acid probes useful zing gene expression in human placenta -
                                                                                                                                                                                                                                                                                                                 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #6707
                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                        MOLECULAR DYNAMICS INC.
                                                                                                                                                                                                                                                                                                                               gene expression
                                                                                                                                                                                                                                                                                                               SEQ ID No 6707; 654pp; English.
                                                                                                                                                                                                                                                                                                                                                                       Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-0234685.
2000US-02346359.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          used to measure
                                                                                                                                                                                                            Conservative
                                                      e; Evl gene; Mena; mammalian Ena; cell morphology; cell adhesion; cell differentiation; ds.
                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
       Location/Qualifiers
418:.1599
/*tag= a
                                                                                                                                     cDNA; 1956
                                                                                                                                                                                                                  65.3%;
                                                                                                                                                                                                                                                  A; 113
                                                                                                                                                                                                                                                                                                                                                                       Chen W,
                                                                                                                                                                                                                                                                                                                               in human placenta
                                                                                                                                                                                                          Score 19.6; I
Pred. No. 58;
0; Mismatches
                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                  C; 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene expression in human placenta sample
                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                                                                                        Rank
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                                                                                                                                                                                                                                                  Ή,
                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                  0 other;
                                                                                                                                                                                                                          22;
                                                             Enabled;
cell motility;
                                                                                                                                                                                                           4.
                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                          Length 486;
                                                                                                                                                                                                                                                                        The probes are useful
                                                                                                                                                                                                           0;
                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                 gene
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RESULT 42
AAK70210/c
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mammalian Ena (Mena, See V02996) sequence to search the GenBank database. 2 Novel mammalian genes, Mena and Ev1, encoding Mena (see W37148) and Ev1 are disclosed. Mena and Ev1 proteins have a discrete, EVH1 functional domain responsible for Mena binding to Listeria, and to the cytoskeletal proteins zyxin and vinculin. Based on the disclosed Mena and Ev1 genes and proteins, a variety of methods and compositions are provided for screening, isolating and characterising endogenous and exogenous factors, drugs and therapeutic agents useful to evaluate and/or control cytoskeletal dynamic events involved in normal and abnormal cell morphology, adhesion, motility, growth and/or differentiation. A method of
                                              Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                 1092 CAGAGCAGCCAGTCCTGATGCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This cDNA comprises murine Ena-VASP like (EV1) cDNA that codes for a 393-amino acid Ev1 protein (see W37149). It was isolated from a mouse embryonic stem cell cDNA library using human EST clone T80305 as probe; the EST had been identified using a novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Detection of modulators of Mena and Ena-VASP-like genes and pr
used in control of cytoskeletal dynamic events in normal and
abnormal cell morphology, adhesion, motility, growth and
                                                                                          cytostatic;
                                                                                                                                                                                                                                                                                                           AAK70210 standard; DNA; 7885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1998-101197/09.
P-PSDB; AAW37149.
WO200157182
                                                                                                                                                                 Human
                                                                                                                                                                                                              06-NOV-2001
                                                                                                                                                                                                                                                               AAK70210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1956 BP; 461 A; 571 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        detecting a modulator of Mena activity/expression is claimed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  differentiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gertler FB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GBFB ) GES BIOTECHNOLOGISCHE (HUTC-) HUTCHINSON CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUL-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-JAN-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 ctgggcagcaccaagtccggatgcagatc
                                            sapiens
                                                                                                                                                               immune/haematopoietic antigen genomic sequence
                                                                                                                     immune;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 66-67; 77pp;
                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Niebuhr K,
                                                                                                                   haematopoietic; immune/haematopoietic antigen; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96US-0675815
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                                                                                          therapy; vaccine;
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79.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 19.4;
Pred. No. 88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FORSCHUNG
CENT FRED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               559 G; 362 T; 3 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                   1064
                                                                                             metastasis;
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                                                                                                                                                                 SEQ
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17-JAN-2001; 2001WO-US01354

09-AUG-2001

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2000US-017905
2000US-011905
2000US-01184664
2000US-01184664
2000US-01184664
2000US-01189874
2000US-0119123
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20-OCT-2000

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20-OCT-2000

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01-NOV-2000

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01-NOV-2000

01-DEC-2000

01-DEC-2000

08-DEC-2000

09-DEC-2000

09-DE
Nucleic acids useful for premetastasis -
                                                                         2001-483426/52.
                                                                                                           CA,
                                                                                                                                               HUMAN
     cids encoding r preventing, c
                                                                                                                                                                             2000US-0237037
2000US-0237039
2000US-0237040
2000US-0249060
2000US-0241786
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2000US-02511999
2000US-02511999
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                 human immune/hematopoietic diagnosing and/or treating
                                                                                                             MS
                    cancers
                    polypeptides, and
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31-TAN-2000
24-FEB-2000
24-FEB-2000
24-FEB-2000
16-MAR-2000
17-MAR-2000
17-MAR-2000
28-JUN-2000
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RESULT A
ABLO7968
ID ABLO
XX ABLO
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (I) by expressing inactive proteins or to supplement the patients own production of (I). Additionally, (I) polynucleotides may be used to produce the secreted (I), by inserting the nucleic acids into a host cell and culturing the cell to express the protein. (I) proteins and polynucleotides may be used to prevent, diagnose and treat immune/haematopoietic related diseases, especially cancers and cancer metastases of haematopoietic antigen genomic to AAK87694 represent human immune/haematopoietic antigen genomic seguences from the present invention. AAK9492 to AAK94950 and AAM82169
   The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The invent. useful in developmental biology and in elucidating cell signalling a
                                                                    Claim 1;
                                                                                                                                                                  P-PSDB; ABB63865.
                                                                                                                                                                                                                                                                                   23-MAR-2000;
11-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4858
                                                                                                      New isolated nucleic agenes from Drosophila interactions -
                                                                                                                                                                               WPI; 2001-656860/75.
                                                                                                                                                                                                                                                                                                                                 23-MAR-2001; 2001WO-US09231
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                                                                                                                                                                                                                                                                                                                                                                                                   WO200171042-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pharmaceutical;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Drosophila melanogaster expressed polynucleotide SEQ ID NO 18386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-MAR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABL07968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABL07968 standard; cDNA; 2687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               activity, and can proteins and polyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  amino
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Drosophila;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 7885 BP; 1659 A; 2265 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAK54951 to AAK64702 encode the human
                                                                                                   interactions
                                                                                                                                                                                                                                                  (PEKE )
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 tgggcagcaccaagtccggatgcagatcc
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                                                                                                                                                                                                                  JC,
                                                                                                                                                                                                                                                    PΕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . Similarity
23; Conserv
of detecting 1000 or mor
                                                                  SEQ ID NO 18386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                  CORP NY.
                                                                                                                                                                                                                  Adams M,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                developmental biology; cell signalling; insecticide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                 2000US-191637P
2000US-0614150
                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene;
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                                                                                                                                                                                                                  PWD,
                                                                                                                detection for elucid
                                                               21pp + Sequence Listing; English.
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Pred.
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                                                                                                                elucidating
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No. 1.
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 phila. The invention cell signalling and

 have cytostatic

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and c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
       The present sequence is that of cDNA encoding mouse osteoregulin (s AAB82919), a novel protein which plays a role in regulating bone homeostasis, adiposity, and the calcification of atherosclerotic plaques. The cDNA was isolated on the basis of hybridisation to rat osteoregulin cDNA, ad well as PCR and 3'RACE amplifications of mouse tibia cDNA. The invention provides osteoregulin proteins, nucleic acids which encode them, vectors, antibodies, host cells which express heterologous osteoregulins, and animal cells and mammals with a targeted disruption of an osteoregulin gene. The
                                                                                                                                                           Novel osteoregulin polypeptide useful for regulating be adiposity and calcification of atherosclerotic plaques measuring the activity of osteoregulin -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cell-cell interactions in higher eukaryotes for the development insecticides, therapeutics and pharmaceutical drugs. The inventi discloses genomic DNA sequences (ABL16176-ABL30511), expressed D sequences (ABL01840-ABL16175) and the encoded proteins (ABB57737-ABB72072).
                                                                                                                                   Claim 4; Page 42-43; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Osteoregulin; mov
atherosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                 WPI; 2001-604111/69
P-PSDB; AAB82919.
                                                                                                                                                                                                                                                     Brown
                                                                                                                                                                                                                                                                                                     29-FEB-2000;
22-SEP-2000;
                                                                                                                                                                                                                                                                                                                                           27-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                    05-SEP-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mouse osteoregulin cDNA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2687 BP;
                                                                                                                                                                                                                                                                            (PFIZ ) PFIZER PROD INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            therapy; ss.
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                                                                                                                                                                                                                                                     De Wet JR,
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2000US-234500P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers 67..1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        osteoporosis;
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87.
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                                                                                                                                                                                                                                                     Gowen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      591 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     homeostasis; adipose; calcification;
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Pred. No. 1
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                                                                                                                                                                                                                                                     Hames LM;
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 modulators
                                                                                                                                                                                        bone homeostasis,
                                                                                                                                                                           comprises
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DNA
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RESULT 45
AAQ7350/C
ID AAQ735
XX AAQ735
XX AAQ735
XX PSeudo
KW Pseudo
KW Protec
OX Pseudo
XX Protec
PT misc_f
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Matches 22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pseudorables virus; PRV; LLV; large latency transcript; attenuated virus; vaccine; early protein 0; EPO; HSV-1 protecting animals; deletion mutants; swine; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
New pseudorables virus mutants for use in vaccine - having deletion and/or insertion in the early protein O gene or lalatency transcript gene
                                                                                                                                                                     Cheung AK, Wesley RD
                                                                                                                                                                                                                     (USDA ) US SEC OF AGRIC
                                                                                                                                                                                                                                                                    11-SEP-1992;
                                                                                                                                                                                                                                                                                                                    11-SEP-1992;
                                                                                                                                                                                                                                                                                                                                                                      04-OCT-1994
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pseudorables viru attenuated virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA encoding
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         132
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and regeneration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 81.5
22; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        virus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "kwa
8382..8387
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/note= "derived
622..6498
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/note= "derived from PRV strain InFh"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note=
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Pred. No. 1.3e
0; Mismatches
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1.3e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   acid sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1682;
                      or large
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QΥ
                                                                                                                                                                                          CC (LLT). The basic sequence is derived from PRV strain InFh and PRV CC strain Ka The LLT overlaps and is transcribed in the opposite CC orientation with respect to the EPO (early polypeptide 0) and the CC immediately early gene (IE180). EPO is nonessential for replicatio, CC LLT is the only gene expressed during PRV latency, and the IE180 gene is absolutely necessary for PRV replication. However there are CC copies of IE180 in the genome. It is expected that PRV lacking one CC of the IE180 copies is viable. Deletions in the non-overlapping CC regions of these 3 genes will generate single deletion routants, CC while deletions in overlapping regions will generate double deletion of attenuated courses which have a reduced ability to reactivate from latency. This CC can be achieved by functionally disabling the expression of the EPO CC gene, or by disrupting the synthesis of the LLT, or both. (See also CC AAQ73501 and AAR60620-24)
                                                                   Query Match
Best Local S
Matches 22
4239
                                                                                                                                                    Sequence 8438 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Column 15-30; 43pp; English.
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GCCAGCACCAAGTCCGGCTCCAGCACC 4213
                ggcagcaccaagtccggatgcagatcc 30
                                                                     L Similarity
22; Conser
                                                                       Conservative
                                                                                                                                                             1141 A; 2916
                                                                                      63.3%;
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                                                                                        Score 19;
Pred. No.
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                                                                       Mismatches
                                                                                                                                                             3327
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                                                                 JB 1.
1.6e+02;
5;
                                                                                                         DB 15;
                                                                                                     Length 8438;
                                                                       Indels
                                                                       0;
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Search completed: September 10, 2002, 01:51:07 Job time: 4336 sec

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Minimum
Maximum
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No.
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Maximum Match 99%
Listing first 45 summaries
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Perfect score:
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1: /cgn2_6/ptodata/1

2: //gn2_6/ptodata/1

3: /cgn2_6/ptodata/1

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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCTUS_COMB.seq:*
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    Length
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(c) 1993 - 2000 Compugen Ltd
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 1 US-08-469-427A-8
2 US-08-609-443B-8
2 US-08-699-443B-4
2 US-08-699-443B-12
2 US-08-699-443B-12
2 US-08-699-443B-12
2 US-08-699-443B-1
2 US-08-699-443B-1
2 US-08-699-427A-1
1 US-08-59-063C-1
2 US-08-699-427A-6
2 US-08-699-427A-6
2 US-08-699-427A-6
2 US-08-699-427A-6
2 US-08-699-427A-6
2 US-08-599-163C-6
2 US-08-599-163C-6
2 US-08-599-163C-6
2 US-08-599-163C-6
3 US-08-599-1336C-7
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4 US-09-103-840A-1
5 US-08-678-207A-136
1 US-08-858-207A-136
1 US-08-688-207A-136
1 US-08-678-039A-39
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3 US-08-479-281A-11
US-09-191-359-3
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161.778 Million cell updates/sec.
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Sequence 3, Appli
Sequence 37, Appli
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Sequence 37, Appli
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                                                                 US-08-469-427A-8
  Query Match 89.3%;
Best Local Similarity 93.3%;
Matches 28; Conservative
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Score 26.8; DB 1 Pred. No. 0.0081; 0; Mismatches

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Length 405; Indels

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RESULT 1 US-08-469-4 Sequence Patent Me GENERAL APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC COMPUT MEDIO	4444400 000113842	33333333333333333333333333333333333333
427A-8 427A-8 8, Application US/0846942 0. 5607918 INFORMATION: CANT: Eriksson, Ulf CANT: Olfsson, Birgitta CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANT: Alitalo, Kari CANTON LAR CODING SECULAR E OF INVENTION: DNA CODING SECULAR E OF INVENTION: DNA CODING SECULAR E OF INVENTION: DNA CODING SECULAR E OF INVENTION: COMPATIBLE COLOST RESSEE: Evenson, McKeown, Mc	2 57.3 2596 6 5266464-1 2 57.3 4330 3 US-09-310-293-1 2 57.3 4330 3 US-09-310-293-1 2 57.3 4330 4 US-09-579-376-1 2 57.3 4330 4 US-09-579-376-1 3 56.7 1320 2 US-08-641-038A-1 3 56.7 1369 2 US-08-642-541-1 3 56.7 1369 2 US-08-642-541-3 3 Sequence 3 56.7 1369 2 US-08-642-541-3 3 Sequence 3 Sequence 3 Sequence 3 Sequence 4 Sequence 4 Sequence 4 Sequence 5 Sequence 5 Sequence 5 Sequence 6 Sequence 6 Sequence 6 Sequence 6 Sequence	1338 4 US-09-097-231-11 Sequence 1: 2107 1 US-07-795-859B-3 Sequence 3: 2107 1 US-08-457-616-3 Sequence 3: 11873 2 US-08-970-269A-32 Sequence 3: 11873 4 US-09-407-562-32 Sequence 3: 11878 2 US-08-970-269A-31 Sequence 3: 11878 4 US-09-407-562-31 Sequence 3: 11878 4 US-09-407-562-38 Sequence 3: 11883 4 US-09-407-562-28 Sequence 2: 11883 4 US-08-483-528B-53 Sequence 2: 11883 4 US-08-483-528B-53 Sequence 2: 11883 5 US-08-483-528B-53 Sequence 5: 11883 6 US-08-483-528B-53 Sequence 5:
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RESULT 3
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US-08-609-443B-8
Sequence 8, Application US/08569063C Patent No. 5928939
                                                                                                                                                                                                                   Query Match
Best Local Similarity
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                                                                                                                                                                                                  Matches
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/609,443B
FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
CLASSIFICATION DATA:
APPLICATION NUMBER: US 08/397,651
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/469,427
APPLICATION NUMBER: US 08/469,427
                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/41979CP4
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 08/569,063
FILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 06-JUN-1995 PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: PAJUSOLA, Katri
                                                                                                                278 CTGGGCAACACCAAGTCCGAATGCAGATCC 307
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                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: sing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: EVANS, Joseph D
REGISTRATION NUMBER: 2
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CITY: Washington
                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                               405 base pairs
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ALITALO, Kari
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                                                                                                                                                                                                                                                                                                                                                      single
                                                                                                                                                                                                                   89.3%;
93.3%;
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Pred. No. 0.0081;
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                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 89.3%;
Best Local Similarity 93.3%;
Matches 28; Conservative
                                                                                                                                                                                                                                                                       Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 08/469,427

PRIOR APPLICATION NUMBER: US 08/469,427

FILING DATE: 06-JUN-1995

PRIOR APPLICATION NUMBER: US 08/397,651

APPLICATION NUMBER: US 08/397,651

FILING DATE: 01-MAR-1995

ATTORNEY/AGENT INFORMATION:

NAME: EVANS, JOSEPH D

REGISTRATION NUMBER: 26,269

REGISTRATION NUMBER: 26,269
                                                                                                                                                                                                                                                        GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (202) 628-884
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION: APPLICANT: ERIKSS
                                                                                                 APPLICANT: Erikssou, ---
APPLICANT: Olofsson, Birgitta
APPLICANT: Alitalo, Kari
APPLICANT: Pajusola, Katri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: 11
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                STREET: 1200 G S
CITY: Washington
STATE: DC
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                                         ADDRESSEE: Evenson, McKeown, STREET: 1200 G Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: 06-DEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single
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                                                                                                                                                                                                                                                                         4, Application US/08469427A
p. 5607918
                                                                                                                                                                                                                                                      INFORMATION:
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ALITALO, Kari
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Pred. No. 0.
                                         Edwards & Lenahar
Suite 700
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 405;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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COMPUTER READABLE FORM: MEDIUM TYPE: Floppy

Floppy disk

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; TISSUE TYPE: adult mouse heart
US-08-469-427A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
US-08-609-443B-4
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APPLICANT: ERIKSS
APPLICANT: OLOFSS
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SEQUENCE CHARACTERISTICS:
LENGTH: 565 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: LINEAL MOLECULE TYPE: CDN
                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                          APPLICANT: ALITALO, KAT1
APPLICANT: PAJUSOLA, KAT1
TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B
TITLE OF INVENTION: DNA CODING THEREFOR
APPLICATION NUMBER: US/08/609,443
FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Evenson, McKeown,
STREET: 1200 G Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 41979cp2
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/469,427A FILING DATE: 06-JUN-1995
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ALITALO, Kari
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                                                                                                 US/08/609,443B
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Pred. No. 0.
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; TISSUE TYPE: adult mouse heart
US-08-609-443B-4
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Best Local Similarity
Matches 28; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (202) 628-884 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, VeCURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/569,063C
FILING DATE: 06-DEC-1995
                                                                                                                     FILING DATE: 06-DEC-1995

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/469,427

FILING DATE: 06-JUN-1995

PRIOR APPLICATION DATA:
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,
                                                   APPLICATION NUMBER: US 0 FILING DATE: 01-MAR-1995 ATTORNEY/AGENT INFORMATION: NAME: EVANS, Joseph D
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APPLICANT: PAJUSOLA, Katri
TITLE OF INVENTION: VASCULAR ENDOTHELIAL
TITLE OF INVENTION: DNA CODING THEREFOR
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APPLICANT: OLOFSSON, Birgitta
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         273 CTGGGCAACACCAAGTCCGAATGCAGATCC 302
                                     NAME: EVANS, Joseph D
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                            CITY: Washington
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93.3%;
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set, N.W.,
                                                                                                        us 08/397,651
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                   1064/41979CP3
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Pred. No. 0.0085;
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US-08-609-443B-12; Sequence 12, Application US/08609443B: Patent No. 5840693
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Best Local Similarity
                                                                                      NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
TELEFAX: (202) 628-8844
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                                                                       TELEFAX: (202) 628-88 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08
                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
              SEQUENCE CHARACTERISTICS:
LENGTH: 624 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                   APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
PRIOR APPLICATION UNATA:
APPLICATION UNABER: US 08/569,063
FILING DATE: 06-DEC-1995
                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 435
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/397,651
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ORIGINAL SOURCE:
TISSUE TYPE: adult mouse heart
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Birgitta
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Katri
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 STRANDEDNESS:
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single
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93.3%;
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; ORIGINAL SOURCE: ; TISSUE TYPE: US-08-569-063C-12
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Best Local S
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                                                                                                                                                                                                       APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, Joseph D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/41979
TELECOMMUNICATION INFORMATION:
                                                                                                                          TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 624 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL
                                               MOLECULE TYPE: CI
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 08/469,427 FILING DATE: 06-JUN-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08 FILING DATE: 06-DEC-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
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TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND
TITLE OF INVENTION: DNA CODING THEREFOR
NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Birc
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Kati
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HYPOTHETICAL:
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                                                                              TOPOLOGY:
                                                                                              TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: U
ZIP: 20005
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ALITALO, Kari
                                                                              linear
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                                                                                                                                                                                             (202) 628-8800
                mouse
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93.3%;
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Pred. No. 0.0086;
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Query Match Best Local Similarity

89.3%;

Score 26.8; DB 2; Pred. No. 0.0086; 0; Mismatches 2;

Length 624;

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Gaps

0;

28;

Conservative

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US-08-469-427A-1

Sequence 1, Application US/08469427A Patent No. 5607918

GENERAL INFORMATION:

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RESULT 10
US-08-609-443B-1
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              Sequence 1, Application US/08609443B Patent No. 5840693
GENERAL INFORMATION:
APPLICANT: ERIKSSON, Ulf
                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                    Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: Evans, Joseph D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 41979cp2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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APPLICANT:
APPLICANT:
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 06-JUN-199
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ORIGINAL SOURCE:
TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                              IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
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   APPLICANT:
                                                                                                                                        184 CTGGGCAACACCAAGTCCGAATGCAGATCC 213
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ZIP: 20005
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                                                                                                                                                                                                                    Similarity
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EDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                         886 base pairs
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1200 G Street, N.W., Suite 700
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Alitalo, Kari
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OLOFSSON, Birgitta
                                                                                                                                                                                                      Conservative
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SYSTEM: PC-DOS/MS-DOS
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93.3%;
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Pred. No. 0.
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RESULT 11
US-08-569-063C-1
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                                                                                                      Sequence 1, Application Patent No. 5928939
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 28; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 06
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 06
FILIT PRIOR NUMBER: US 06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, Joseph D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: PC-DO SOFTWARE: PatentIn Relaction DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 57
              TITLE OF INVENTION:
                                                          APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Bir
APPLICANT: ALITALO, Kari
                                                                                                                                                                                                                                                                                                                                                                             IMMEDIATE SOURCE:
CLONE: pcif2
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HYPOTHETICAL:
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LENGTH: 886 base pairs
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CORRESPONDENCE ADDRESS:
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NUMBER
                                                APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 26
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single
                                                                                                                                                                                                                                   1 ctgggcagcaccaagtccggatgcagatcc 30
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 OF SEQUENCES:
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                                                                                                                                        Application US/08569063C
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                                             PAJUSOLA, Katri
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SYSTEM: PC-DOS/MS-DOS
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01-MAR-1996
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DNA CODING 23
                                                                                                                                                                                                                                                                                               93.3%;
              VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND DNA CODING THEREFOR
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                                                                            Birgitta
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                                                                                                                                                                                                                                                                                 Score 26.8; DB Pred. No. 0.009; 0; Mismatches
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                                                                                                                                                                                                                                                                                                              Length 886;
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CORRESPONDENCE ADDRESS:

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Best Local Similarity
Matches 28; Conserv
                                                                                                                                                                                                                                                                            Sequence 6, Application US/08469427A Patent No. 5607918
                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                            APPLICANT: Eriksson, Ulf
APPLICANT: Olofsson, Birgitta
APPLICANT: Alitalo, Kari
APPLICANT: Pajusola, Katri
TITLE OF INVENTION: VASCULAR EN
TITLE OF INVENTION: DNA CODING
NUMBER OF SEQUENCES: 17
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INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: CD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/569,063C FILING DATE: 06-DEC-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGINAL SOURCE:
TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 886 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                               CORRESPONDENCE ADDRESS:
                                       STATE: DC 20005
                                                                                                                                                                                                                                                                                                                                                                              184 CTGGGCAACACCAAGTCCGAATGCAGATCC 213
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                                                                                                  STREET:
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                                                                               Washington
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                                                                                                E: Evenson, McKeown, Edwards & Lenahan 1200 G Street, N.W., Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E: Evenson, McKeown, 1200 G Street, N.W.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Joseph D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         single
                                                                                                                                                                                                                                                                                                                                                                                                                                                           89.3%;
93.3%;
                                                                                                                                                  DNA CODING THEREFOR 17
                                                                                                                                                                                VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US 08/397,651
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                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 26.8; DB Pred. No. 0.009; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Edwards & Lenahan, P.L.L.C. Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ٧,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 886;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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US-08-609-443B-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                           FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNUMBER: US 08/
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (202) 628-88 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Evenson, McKeown, Edwards & Lenahan, STREET: 1200 G Street, N.W., Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Birgit
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Katri
                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGINAL SOURCE:
TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: CH
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CURRENT APPLICATION DATA:
PRIOR APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      278 CTGGGCAACACCAAGTCCGAATGCAGGTAC 307
            APPLICATION NUMBER: US 08/469,427 FILING DATE: 06-JUN-1995
                                                                                                                                  APPLICATION NUMBER: US/OFILING DATE: 01-MAR-1996
                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Evans, Joseph D
REGISTRATION NUMBER: 26
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                               COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: 06-JUN
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86.7%;
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In Release #1.0, Version #1.25
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                                                                                US 08/397,651
                                                                                                                                                        US/08/609,443B
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 Mismatches

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ATTORNEY/AGENT INFORMATION:

EVANS,

Joseph D

APPLICATION NUMBER: US 0 FILING DATE: 06-DEC-1995

US 08/569,063

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US-08-569-063C-6
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Patent No. 592893
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Best Local
                                             APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: EYANS, JOSEPH D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/41979CP3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
TELEFAX: (202) 628-8844 INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC -DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
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REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                 APPLICATION NUMBER: US/OFFILING DATE: 06-DEC-1995
PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
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TISSUE TYPE: adult mouse heart
                                                                                                                                                                                   APPLICATION NUMBER: US 08/469,427 FILING DATE: 06-JUN-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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TYPE: nucleic acid
STRANDEDNESS: single
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OLOFSSON, Birgitta
                                                                                                                                                                                                                                                                                                                                                                                                          USA
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86.7%;
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Patent No. 5352596
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                             TELEFAX: 309-685-4128
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                    STRANDEDNESS:
TOPOLOGY: line
MOLECULE TYPE:
                                                                                                          ANTI-SENSE: NO
ORIGINAL SOURCE:
^^^NISM: Pseudorabies virus
                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 8438 base pairs
TYPE: NUCLEIC ACID
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGINAL SOURCE:
TISSUE TYPE: adult mouse heart
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                            LOCATION: FEATURE:
                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: Ribando, Curtis P
REGISTRATION NUMBER: 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Curtis P. Ribando
                                                          FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
TELEPHONE: 309-685-4011 ext.513
                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Cheung, APPLICANT: Wesley,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                       HYPOTHETICAL:
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                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: U: FILING DATE: 19920911
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                                                                                                   NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
LOCATION:
                NAME/KEY:
                                                                                       LOCATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1815 No. 5352596th University Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                           309-685-4128
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622..6495
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variation replace(1267,
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                                                          variation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Floppy disk
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, Ronald D.
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86.7%;
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                                          "g")
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4;
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FEATURE:

NAME/KEY:

variation

NAME/KEY:

variation

replace(1381,

"c")

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; FEATURE:
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; LOCATION:
US-07-945-283-1
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US-08-255-471-8
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                          TELEPHONE: (617) 861-6240
TELEFAX: (617) 861-9540
INFORMATION FOR SEO ID NO: 8:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/784,472
FILING DATE: 24-OCT-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                       REGISTRATION NUMBER: 33,542
REFERENCE/DOCKET NUMBER: CM
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Control of the Apolipoprotein AI Gene NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                   FEATURE:
                                                                                MOLECULE TYPE: cDNA to mRNA
   OTHER INFORMATION: OTHER INFORMATION:
                                                                                                              TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/0
FILING DATE: 08-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                               LOCATION:
                                                 NAME/KEY: CDS
                                                                                                 TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                               LENGTH:
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22; Conserv
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                                                                                                                                             1748 base pairs
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                                  343..1584
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63.3%;
81.5%;
/product= "apolipoprotein
regulatory protein-1"
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                                                                                                                                                                                                                                           CMCC-234A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Smith & Reynolds, P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 1;
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Query Match

62.7%;

Score 18.8;

DB 1;

Length 1748;

0,

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RESULT 18
US-09-103-840A-2
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US-08-651-136C-73
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          Sequence 2, Application US/09103840A Patent No. 6294328
GENERAL INFORMATION:
                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                    Matches
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                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 212-878-9655
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Lambiris, Elias J.
REGISTRATION NUMBER: 33,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
TITLE OF IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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ADDRESSEE: No. 6001639o No. 6001639disk
STREET: 405 Lexington Avenue, 64th Floor
                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Takagi, Shinobu
TITLE OF INVENTION: No. 6001639el Endoglucanases
NUMBER OF SEQUENCES: 109
                                                                                                                                                                                                                                                                   FEATURE
                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
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                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 43
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                                                                                                                                                    Local Similarity
mes 19; Conserv
                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 21-MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: United ZIP: 10174-6401
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                                                                                                                                                                                                                                                                                                                                       81 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      United States of America
                                                                                                                                                     Conservative
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Ihara, Michiko
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                                                                                                                                                                                                                                                                                               linear
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21-MAY-1996
                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                  61.3%;
95.0%;
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0; Mismatches
                                                                                                                                                                  Score 18.4;
Pred. No. 23;
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; LENGTH: 4411529
; TYPE: DNA
; ORGANISM: Mycobacterium tuberculosis
; OTHER INFORMATION: H37Rv
US-09-103-840A-1
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US-09-103-840A-1
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APPLICANT: VENTER, John C.
TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN
TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-2007.00
CURRENT APPLICATION NUMBER: US/09/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                           RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: FLEISCHAAN, Robert D.
APPLICANT: WITTE, Owen R.
APPLICANT: WITTE, Owen R.
APPLICANT: VENTER, John C.
TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN ANALYSIS IN MYCOBACTERIUM TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-20007.00
CURRENT APPLICATION NUMBER: US/09/103,840A
CURRENT APPLICATION NUMBER: US/09/103,840A
ROTENARDE DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
                                                                                      Sequence 136, Application US/08858207A Patent No. 6348328
                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 1
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Best Local S
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Best Local
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                                                                   GENERAL
                                                                                                                                                                                         APPLICANT: FLEISCHMAN, Robert D. APPLICANT: WHITE, Owen R.
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TYPE: DNA
ORGANISM: Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: CDC 1551
OTHER INFORMATION: "n" bases at various positions throughout the sequence
OTHER INFORMATION: represent a, t, c or g
                APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                 Local Similarity 78.6 hes 22; Conservative
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                                                                  INFORMATION:
Hodgson, John
Knowles, David
Nicholas, Richard
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                                                     Black, Michael
                                                                                                                                                                                                                                                                               61.3%;
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78.6%;
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                                                                                                                                                                                                                                                                                 Score 18.4;
Pred. No. 48;
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Pred. No. 48;
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RESULT 21
US-08-464-700-53/c
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                                                                                                                                                                                                                                                                                                                                                    Sequence 53, Application US/08464700 Patent No. 6232458 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS_MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/464,700
FILING DATE: 7-JUN-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/858,2
FILING DATE: 09-MAY-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/017670
FILING DATE: 14-MAY-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM Compatib
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for I
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                              APPLICANT: WEISS, ANTHONY S
APPLICANT: MARTIN, STEPHEN L
TITLE OF INVENTION: SYNTHETIC POLYNUCLEOTIDES
NUMBER OF SEQUENCES: 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021 TGGGCTGCACCAAATCCTGTTGCACA 1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 1096 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 610-270-4478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 552
CORRESPONDENCE ADDRESS:
ADDRESSEE: Smithkline Beecham Corporation
STREET: 709 Swedeland Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Stodola, Robert
TITLE OF INVENTION: No. 6348328el Compounds
                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS
                                                                                                                                                                                        STREET: Spring House
CITY: Spring House
STATE: Pennsylvania
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Gimmi, Edward R
REGISTRATION NUMBER: 38,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: King of Prussia STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                           COUNTRY:
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                                                                                                                                                                                                                                                 ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 tgggcagcaccaagtccggatgcaga 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
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                                                                                                                                                            19477
                                                                                                                                                                                                                              Spring House Corporate Cntr, PO Box 457
                                                                                                                                                                             USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                               Howson and Howson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Compatible
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80.8%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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50;
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                                                                       #1.25
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FILING DATE: 22-DEC-PRIOR APPLICATION DATA: PRIOR APPLICATION DATA:
APPLICATION NUMBER:

22-DEC-1992

AU PL6520

AU PL9661

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US-08-641-627A-37/c
; Sequence 37, Application US/08641627A
; Patent No. 5726040
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                                                                                           SOFTWARE: Patentin Release #1.0, Version #1
CURRENT APPLICATION NUMBER: US/08/641,627A
APPLICATION NUMBER: US/08/641,627A
FILING DATE: 02-MAY-1996
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Jarrell Ph.D., Brenda H.
REGISTRATION NUMBER: 39,223
REFERENCE/DOCKET NUMBER: 0062912-0001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 31,215
REFERENCE/DOCKET NUMBER: GHC
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-540-9200
TELEPHONE: 215-540-5818
INFORMATION FOR SEQ ID NO: 53:
                               TELEFAX: (617) 248-4000 INFORMATION FOR SEQ ID NO: 37:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: 11DELL MOLECULE TYPE: CDN
                                                                                                                                                                                                                                                                                     ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Ensley PhD, Burt D.
APPLICANT: Ludmer, Matthew
TITLE OF INVENTION: Cosmetic Compositions Including
TITLE OF INVENTION: Tropoelastin Isomorphs
NUMBER OF SEQUENCES: 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 16-DEC-1993
ATTORNEY/AGENT INFORMATION:
NAME: Bak, Marv P
                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: (617) 248-5000
SEQUENCE CHARACTERISTICS:
LENGTH: 2242 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: AU PIFILING DATE: 28-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local 21;
                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                             STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
                                                                                                                                                                                                                                                                                                                                                                           Boston
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                                                                                                                                                                                                                                                                                                                                                                                           53 State Street
                                                                                                                                                                                                                                                                                                                                           usa
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80.8%; Pred. No.
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US-08-678-039A-39/c
; Sequence 39, Application US/08678039A
; Patent No. 5858662
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; ORIGINAL SOURCE:
; STRAIN: tropoelastin cDNA (cHE-3)
US-08-641-627A-37
                                                                               US-08-678-039A-39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                               TELEFAX: 202-783-6031
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                      TOPOLOGY: linear MOLECULE TYPE: CDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1714 GCCAGCACCAAGCCCAGCTGCAGCTC 1689
                                                                                                                                           ORIGINAL SOURCE:
ORGANISM: Hom
                                                                                                                                                                       MOLECULE N
HYPOTHETICAL: N
                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 2427 base pairs
                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Saxe, Stephen A.
REGISTRATION NUMBER: 38,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: LBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy (
COMPUTER: IBM PC com)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION: TELEPHONE: 202-624-1589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Keating, Mark T. APPLICANT: Morris, Colleen A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                            NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TREET: 555 Thirteenth Street, N.W., Suite 701 East STREET: Tower CITY: Washington
                                                                                                                                                                                                                                                                                                  TELEPHONE: 202 -783-6037
                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/678,039A FILING DATE: 10-JUL-1996 CLASSIFICATION: 435
                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                   TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 ggcagcaccaagtccggatgcagatc 29
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EDNESS: both
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60.0%;
nilarity 80.8%;
Conservative
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                                                                                                                                           Homo sapiens
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                                                                                                                                                                                                                      linear
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                                                                                                                                                                                                         CDNA
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80.8%;
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                                                                                                                                                                                                                                                                                                                                                                            38,609
                                                                                                                                                                                                                                                                                                    39:
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                 2323-120A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 55;
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                              Length 2427;
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Query Match
Best Local Similarity
Matches 21; Conserv

; Score 18; DB; Pred. No. 56; 0; Mismatches

2;

Indels

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Gaps

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ggcagcaccaagtccggatgcagatc

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RESULT 25
US-08-475-637-3/c
; Sequence 3, Application US/08475637
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US-08-044-812A-3/c
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                                                                                                                                                                                                              ; LOCATION:
US-08-044-812A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Application US/08044812A Patent No. 5837521
                                                                                                                                                     Query Match
Best Local :
                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 910-221-5317
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1800 GCCAGCACCAAGCCCAGCTGCAGCTC 1775
                                                                                                                                                                                                                                         FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: 312-715-1000 TELEFAX: 312-715-1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Mammalian Melanocyte Stimulating Hormone TITLE OF INVENTION: Receptors and Uses
                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: L'
STREET: L'
Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                  292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                      LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: NO. 5837521nan, Kevin E REGISTRATION NUMBER: 35,303 REFERENCE/DOCKET NUMBER: 92,83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                     NAME/KEY:
                                                                                                                                                                                                                                                                                                                             NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                LOCATION:
                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                               2 tgggcagcaccaagtccggatgcagatcc 30
                                                                                TCGGCGGGACCAGTTCCGGCTGCAGCTCC 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60606
                                                                                                                                                                                                                                                                                                                                                                                  nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                1338 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cone, Roger D
Roselli-Rehfuss, Linda
Mountjoy, Kathleen G
Robbins, Linda S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : Allegretti & Witcoff, Ltd.
10 South Wacker Drive, Suite 3000
                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                 CDS
298..1269
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1..297
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                                                                                                                                                                                                                                                                                                                                                                       linear
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75.9%;
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                                                                                                                                                    Score 17.8;
Pred. No. 62;
                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Version
                                                                                                                                                                 DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #1.25
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RESULT 26
US-08-706-281A-11/c
; Sequence 11, Application US/08706281A
; Patent No. 6100048
                                                                                                                                                       В
                                                                                                                                                                                                                                                                                          ; NAME/KEY:
; LOCATION:
US-08-475-637-3
                                                                                                                                                                                                                            Query Match
Best Local S
                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No. 5994087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 92
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: No. 5994087nan, Kevin
REGISTRATION NUMBER: 35,303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/044,812
FILING DATE: 04-APR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Cone, Roger D
APPLICANT: Roselli-Rehfus
APPLICANT: Mountjoy, Kath
APPLICANT: Robbins, Linda
                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                  FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
                                                                                                                                                     292 TCGGCGGGACCAGTTCCGGCTGCAGCTCC 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 312 ._
mer.ex: 910-221-5317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: 312-715-1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/0: FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                      LOCATION:
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22; Conserv
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                 Cone, Roger D
Fan, Wei
                                                                                                                                                                                                                Conservative
Boston, Bruce A
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298..1269
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                                                                                                                                                                                                                              59.3%;
75.9%;
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                                                                                                                                                                                                              Score 17.8; D: Pred. No. 62; 0; Mismatches
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Sequence 3, Application US/09191359
Patent No. 6261838
GENERAL INFORMATION:
APPLICANT: Cone, Roger D
APPLICANT: Roselli-Rehfuss, Linda
APPLICANT: Mountjoy, Kathleen G
APPLICANT: Robbins, Linda S
APPLICANT: Robbins, Linda S
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US-09-191-359-3/c
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Best Local
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ATTORNEY/AGENT INFORMATION:
NAME: NO. 6100048nan, Kevin E
REGISTRATION NUMBER: 35,303
REFERENCE/DOCKET NUMBER: 96,8
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-913-0001
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
                             TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                  CORRESPONDENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Kesterton, APPLICANT: Lu, Dongsi
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                                                                                                                                                                                                                                                                                                                                 Local Similarity
hes 22; Conserv
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CITY: Chicago
 ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: McDonnell Boehnen Hulbert & Berghoff
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/706,281A
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298..1269
Allegretti & Witcoff, Ltd
                  ADDRESS
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75.9%;
                                                               Mammalian Melanocyte Stimulating Hormone
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                                              Receptors and
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                                                                                                                 Linda
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Pred. No. 62;
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RESULT 28
US-09-097-231-11/c
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COUNTRY:
2IP: 60606

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
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Best Local Similarity 75.9%;
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ATTORNEY/AGENT INFORMATION:
NAME: No. 6261838nan, Kevin E
NAME: No. 6261838nan, Kovin E
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TELEX: 910-221-5317
INFORMATION FOR SEQ ID NO:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1000
TELEFAX: 312-715-1234
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APPLICATION NUMBER: US/0
FILING DATE: 07-JUN-1995
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                                                                                                                                                                                                                                                                                                            LOW, Malcolm J TITLE OF INVENTION: Mammalian Melanocortin Receptor and Uses
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Cone, Roger D
                                                                                                                                                                                                                                                                                  NUMBER
                            STREET: 300 South Wacker Drive
CITY: Chicago
STATE: Illinois
COUNTRY: USA
ZIP: 60606
                                                                                                                                                                                                          ADDRESSEE: McDonnell Boehnen Hulbert & Berghoff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1338 base pairs
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                                                                                                                                                                                                                                                                               OF SEQUENCES:
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1270..1338
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298..1269
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NAME/KEY: 3'UTR
LOCATION: 1270..1338
SEQUENCE DESCRIPTION: SEQ ID NO:
US-09-097-231-11
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US-07-795-859B-3/c
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Best Local Similarity
                                                                      COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: ASCII-DOS

CURRENT APPLICATION DATA:

APPLICATION UMBER: US/07/795,8591

FILING DATE: 18-NOY-1991
                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 11:
                                                                                                                                                                                                                                                                                                                  APPLICANT: Anderson, Stetan
APPLICANT: Russell, David W.
TITLE OF INVENTION: Steroid 5'-Reductases
NUMBER OF SEQUENCES: 37
                                     FILING DATE: 18-NOV-1991
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS
                                                                                                                                                                                                       COUNTRY: US/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             292 TCGGCGGGACCAGTTCCGGCTGCAGCTCC 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/097,231
FILING DATE: 12-Jun-1998
CLASSIFICATION: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6278038nan, Kevin E
REGISTRATION NUMBER: 35,303
REFERENCE/DOCKET NUMBER: 96,886-C
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-913-0001
                                                                                                                                                                                                                                                                          STREET:
                                                                                                                                                                                                                                                                                             ADDRESSEE:
            NAME: Parker, David REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 tgggcagcaccaagtccggatgcagatcc 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
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                                                                                                                                                                                                                                                         Houston
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STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCE CHARACTERISTICS:
LENGTH: 1338 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 312-913-0002
                                                                                                                                                                                                                                                                            P.O Box 4433
                                                                                                                                                                                                                          USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                           Arnold, White and Durkee
, David L. 32,165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <Unknown>
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1..297
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298..1269
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75.9%;
                                                                                           US/07/795,859B
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Pred. No. 62;
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Best Local Similarity
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TELEFAX: (512) 474-7677
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                   TELEFAX: (512) 474-76
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                      APPLICATION NUMBER: US 0 FILING DATE: 18-NOV-1991 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Anderson, Stefan
APPLICANT: Russell, David W.
TITLE OF INVENTION: Steroid 5 - Reductases
NUMBER OF SEQUENCES: 37
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: DNA (genomic) FEATURE:
                                                                                                                                                             TELECOMMUNICATION INFORMATION:
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                  FEATURE:
                             TOPOLOGY: 1
MOLECULE TYPE:
                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 2107 base pair
                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
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ADDRESSEE: Arnold, V
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LOCATION:
                                                                                                                                                                           NAME: Parker, David L.
REGISTRATION NUMBER: 32,165
REFERENCE/DOCKET NUMBER: UTSD:260/PAR
                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: P
SOFTWARE: ASCII-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
                                                                                                                                             TELEPHONE:
                                                                                                                                                                                                                                                                                FILING DATE: 0
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: US
ZIP: 77210
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET:
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NAME/KEY:
                                                         STRANDEDNESS:
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                                                                  nucleic acid
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31..807
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SYSTEM: PC-DOS/MS-DOS
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512) 474-7677
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                             DNA (genomic)
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83.3%;
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Pred. No. 81;
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JS-08-457-616-3

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US-09-407-562-32
; Sequence 32, Application US/09407562
; Patent No. 6294334
; GENERAL INFORMATION:
; APPLICANT: Katheryn Meek
; TITLE OF INVENTION: Genetic Test For Equine Severe
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                                                                                                  RESULT 32
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Best Local Similarity
Whiches 20; Conserva
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COMPUTER: Apple
COMPUTER: Apple
OPERATING SYSTEM: Macintosh
SOFTWARE: Microsoft Word for Macintosh
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/970, 269A
APPLICATION NUMBER: US/08/970, 269A
APPLICATION NUMBER: No. 5976803ember 14, 1997
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 713-777-6908 INFORMATION FOR SEQ ID NO: 32:
                                                                                                                                                                                                                                                                                                                       HYPOTHETICAL: no
ANTI-SENSE: no
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                 5519 GCAGCAGCAAGTGGGGATTCAGAT 5542
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Katheryn Meek
TITLE OF INVENTION: Genetic Test For Equine Severe
TITLE OF INVENTION: Combined Immunodeficiency Disease
                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: Adler Ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D5860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: Dr. Benjamin A. Adler
STREET: 8011 Candle Lane
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                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: double stranded
TOPOLOGY: linear
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83.3%;
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Pred. No. 81;
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Pred. No. 1
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                                                                                                                                                                                                                                                                               Sequence 31, Application US/08970269A Patent No. 5976803
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                             GENERAL INFORMATION:
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TELEFAX: 713-777-6908
INFORMATION FOR SEG ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DESCRIPTION:
HYPOTHETICAL: n
ANTI-SENSE: no
                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                      NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                       APPLICANT: Katheryn Meek
TITLE OF INVENTION: Genet
TITLE OF INVENTION: Comb
                                                                                                                                                                                                                                                                                                                                                                                  5519 GCAGCAGCAAGTGGGGATTCAGAT 5542
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APPLICATION NUMBER: US/09/407,562
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 11873 bp
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NAME: Adler ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D5860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/970,269
FILING DATE: NO. 6294334ember 14, 1997
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: Dr. Benjamin A. Adler
STREET: 8011 Candle Lane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 713-777-2321
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: Apple
OPERATING SYSTEM: Macintosh
SOFTWARE: Microsoft Word for Macintosh
                                                                    COUNTRY: USA
ZIP: 77071
                                                                                                                     STREET: 8011 (CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: double stranded
TOPOLOGY: linear
COMPUTER: Apple OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
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8011 Candle Lane
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83.3%;
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 Macintosh
                                                                                                                                                                                                          Genetic Test For Equine Severe Combined Immunodeficiency Disease
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Pred. No. 1e
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 11873;
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US-08-970-269A-31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 31, Application US/09407562
Patent No. 6294334
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPAX: 713-777-6908
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 11878 bp
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5519 GCAGCAGCAAGTGGGGATTCAGAT 5542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: Adler Ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D5860
                                                                ATTORNEY/AGENT INFORMATION:
NAME: Adler Ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D5860
                                                                                                                                  CLASSIFICATION:
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 08/970,269
FILING DATE: No. 6294334ember:
CLASSIFICATION:
                                                                                                                                                                                                                                                  COMPUTER: Apple
OPERATING SYSTEM: Macintosh
SOFTWARE: Microsoft Word for Macintosh
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: Dr. Benjamin A. Adler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ANTI-SENSE: no
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION: TELEPHONE: 713-777-2321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Microsoft Word for Macintosh CURRENT APPLICATION DATA:
                                              TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Genetic Test For Equine Severe TITLE OF INVENTION: Combined Immunodeficiency Disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HYPOTHETICAL:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
 TELEPHONE: /13 -777-6908
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: No. 5
                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/407,562
                                                                                                                                                                                                                                                                                                                                                             COUNTRY: (ZIP: 77071
                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                               STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 gcagcaccaagtccggatgcagat 28
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                                                                                                                                                                                                                                                                                                                                                                                             Texas
                                                                                                                                                                                                                                                                                                                                                                                                                               8011 Candle Lane
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                              713-777-2321
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                                                                                                                                                  No. 6294334ember 14, 1997
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Pred. No. 1e+0
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US-08-970-269A-28
US-08-970-269A-28
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                                                                                                                                                           TELEFAX: 713-777-6908 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: Adler Ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D5860
TELECOMMUNICATION INFORMATION:
TELEPHONE: 713-777-2321
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                           HYPOTHETICAL: I
                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: Dr. Benjamin A. Adler
STREET: 8011 Candle Lane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DESCRIPTION:
HYPOTHETICAL:
                                                                      MOLECULE TYPE:
                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
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               ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 00-
                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/970,269A FILING DATE: No. 5976803ember 14, 1997 CLASSIFICATION: 435
                                                      DESCRIPTION: other nucleic acid
                                                                                                                                                                                                                                                                                                                                     COMPUTER: Apple
OPERATING SYSTEM: Macintosh
SOFTWARE: Microsoft Word for Macintosh
                                                                                                                                                                                                                                                                                                                                                                      COMPUTER:
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                                                                                     TOPOLOGY:
                                                                                           STRANDEDNESS:
                                                                                                                              CENGTH:
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                                                                                                               nucleic acid
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EDNESS: double stranded
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                                         no
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                                                                                                   double stranded
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83.3%;
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Combined Immunodeficiency Disease
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Pred. No. 1e
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Query Match Best Local Similarity

58.7%;

Score 17.6; DB 2; Length 11883; Pred. No. 1e+02; 0; Mismatches 4; Indels 0;

Gaps

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; ANTI-SENSE: no
; ORIGINAL SOURCE:
US-09-407-562-28
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Best Local S
Matches 20
                                                        Sequence 53, Applicat Patent No. 5939532 GENERAL INFORMATION:
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Adler Ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D5860
TELECOMMUNICATION INFORMATION:
TELEPHONE: 713-777-2321
TELEPHONE: 713-777-6908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 713-777-6908 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: Apple
OPERATING SYSTEM: Macintosh
SOSTWARE: Microsoft Word for Macintosh
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/407,562
                                                                                                                                                                   5521 GCAGCAGCAAGTGGGGATTCAGAT 5544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 08/970,269
FILING DATE: No. 6294334ember 14, 1997
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MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION: CON
NUMBER OF SEQUENCES: 3:
CORRESPONDENCE ADDRESS:
APPLICANT:
                                                                                                                                                                                                                                  Local Similarity nes 20; Conserv
                                                                                                                                                                                                                                                                                                                                                                       DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: double stranded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
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                                                                                                                                                                                     gcagcaccaagtccggatgcagat 28
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                                                                                       Application US/08483528B
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NAKAMURA, KAZUYASU
KOIKE, MASAMICHI
SHITARA, KENYA
HANAI, NOBUO
                                                                                                                                                                                                                                                                                                                                                                                                                                                     11883 bp
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8011 Candle Lane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
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                                                                                                                                                                                                                                                                                                                                                                                                       linear
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                                                                                                                                                                                                                                               58.7%;
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Combined Immunodeficiency Disease
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); Mismatches
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IDENTIFICATION: 99..109
; IDENTIFICATION METHOD: 07HER INFORMATION: /procusion-08-483-528B-53
                                                                                                    RESULT 38
US-08-673-799C-53
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                                                                       ; Patent No.
                                                                 Sequence 53, Application of the No. 6042828
                                                                                                                                                                                                           Query Match
Best Local Similarity 73.3
Matches 22; Conservative
                                          GENERAL INFORMATION:
APPLICANT: NAKAMU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (703)816-4100
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 442 base pairs
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: other nucleic acid DESCRIPTION: /desc = "synthetic DNA" ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: (703)816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOTTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: HASSGAWA, MAMORU
TITLE OF INVENTION: HUMANIZED ANTIBODIES
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                              124 CTGACCTGCACCGTGTCCGGATACACATTC 153
                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: domain
LOCATION: 50..66
IDENTIFICATION METHOD:
OTHER INFORMATION: /pi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: domain
LOCATION: 31..35
IDENTIFICATION METHOD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: sig_peptide LOCATION: -19..-1
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                                                                                     Application US/08673799C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1100 NORTH GLEBE ROAD
          NAKAMURA, KAZUYAS
KOIKE, MASAMICHI
SHITARA, KENYA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (703)816-4100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KUWANA, YOSHIHISA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens and
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                                                                                                                                                                                                                                    57.3%;
73.3%;
                                             KAZUYASU
                                                                                                                                                                                                                                                                                                       DD: by similarity with known sequence
/product= "CDR3"
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/product= "CDR1"
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oduct= "CDR2"
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Pred. No. 95
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HANAI,

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NAME/KEY: domain
LOCATION: 99..109
LIDENTIFICATION METHOD: by similarity with
OTHER INFORMATION: /product= "CDR3"
US-08-673-799C-53
                                                    ; Patent No. 5266464; APPLICANT: HOUSEY, GERARD; TITLE OF INVENTION: METHOD OF
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                                                                                                     RESULT 39
5266464-1
                                             ; AND
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Best Local
                                                                                                                                                                                                                      Matches
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 22201-4714
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: HUMANIZED ANTIBODIES NUMBER OF SEQUENCES: 104
CORRESPONDENCE ADDRESS:
                                             ACTIVATORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOUTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
NUMBER OF SEQUENCES: 3
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
MOLECULE TYPE: other nucleic acid
DESCRIPTION: /desc = "synthetic DNA"
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TELEPHONE: (703)816-4000
TELEFAX: (703)816-4100
FORMATION FOR SEQ ID NO: 53:
                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                           ADDRESSEE: NIXON & VANDERHYE P.C. STREET: 1100 NORTH GLEBE ROAD CITY: ARLINGTON
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                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: domain LOCATION: 50..66 IDENTIFICATION METHOD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: sig_peptide LOCATION: -19..-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 442 base pairs TYPE: nucleic acid STRANDEDNESS: double
                                                                                                                                                                                                                                  Local Similarity
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IDENTIFICATION METHOD:
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73.3%;
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/product= "CDR2"
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Pred. No. 95;
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 SOFTWARE:
SEQ ID NO 1
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; ORGANISM: Staphylococcus aureus US-09-310-293-1
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FRIOR APPLICATION DATA:
APPLICATION NUMBER: 154,206
FILING DATE: 10-FEB-1988
SEQ ID NO:1:
LENGTH: 2599
            FILE REFERENCE: GM10000
CURRENT APPLICATION NUMBER: US/09/579,376
CURRENT FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 09/310,293
PRIOR FILING DATE: 1999-05-12
PRIOR APPLICATION NUMBER: 60/086,579
PRIOR FILING DATE: 1998-05-22
PRIOR FILING DATE: 1998-05-22
NUMBER OF SEQ ID NOS: 2
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LENGTH: 4330
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Best Local Similarity 73.3
Matches 22; Conservative
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Best Local Similarity
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CURRENT FILING DATE: 1999-05-12
EARLIER APPLICATION NUMBER: 60/086,579
EARLIER FILING DATE: 1998-05-22
NUMBER OF SEQ ID NOS: 2
                                                                                                                                                                           APPLICANT: Warren, Richard L.
APPLICANT: Van Horn, Stephanie
APPLICANT: Traini, Christopher M.
APPLICANT: Mathie, Thomas B.
TITLE OF INVENTION: Respiratory nitrate reductase alpha
TITLE OF INVENTION: subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Respiratory nitrate reductase alpha TITLE OF INVENTION: subunit FILE REFERENCE: GM10000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Warren, Richard L.
APPLICANT: Van Horn, Stephanie
APPLICANT: Traini, Christopher M.
APPLICANT: Mathie, Thomas B.
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FastSEQ
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for Windows Version
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US-08-641-038A-1
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US-08-641-038A-1
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                                                            Best Local Similarity
Matches 20; Conser
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Best Local Similarity
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TYPE: DNA
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Re-lease #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 1320 base pairs
TYPE: nucleic acid
STRANDENESS: double
                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: MURPHY JR, GERALD M
REGISTRATION NUMBER: 28,97
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                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                       MOLECULE TYPE: other nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: TANAKA, HIDEHIKO APPLICANT: INOUE, HIROYUKI
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385
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: PO BOX 747
CITY: FALLS CHURCH
                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 0020-3989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
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                1 ctgggcagcaccaagtccggatgca 25
                                                                                                                                                                                                                        TOPOLOGY:
CTGGGCAACACCCTGTACGGCTGCA 409
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ESAKI, NOBUYOSHI
VENTION: RECOMBINANT L-METHIONINE GAMMA-LYASE
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                                                              Conservative
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Pred. No. 1.3e+02;
                                                                             Pred. No. 1.4e+02;
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RESULT 43

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US-08-642-541-1
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                                                                                                                                                                        Sequence 1, Application US/08642541 Patent No. 5891704
                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 20; Conserv
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ZIP: 22040-0/4,

ZIP: 22040-0/4,

COMPUTER READABLE FORM:

COMPUTER: Floppy disk

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: PC-DOS/MS-DOS

COMPUTER: PC-DOS/MS-DOS

COMPUTER: PC-DOS/MS-DOS
                                                                                                                                                      GENERAL INFORMATION:
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TELEFAX: (703) 205-8050
INFORMATION FOR SEQ ID NO: 1:
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APPLICANT:
                                                                                     APPLICANT: YUYING, TAN TITLE OF INVENTION: HIG TITLE OF INVENTION: MET TITLE OF INVENTION: THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: INAGAKI, KENJI
APPLICANT: ESAKI, NOBUYOSHI
TITLE OF INVENTION: RECOMBINANT L-METHIONINE GAMMA-LYASE
                                                  CORRESPONDENCE ADDRESS
                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: other nucleic acid
                                                                                                                                                                                                                                                                                 385 CTGGGCAACACCCTGTACGGCTGCA 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: double TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: PO BOX 747 CITY: FALLS CHURCH
                  STREET:
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Washington
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              2000 Pennsylvania Avenue,
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INOUE, HIROYUKI
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                                  MORRISON & FOERSTER
                                                                                                                                                                                                                                                                                                                                                                    56.7%;
                                                                                                     HIGH EXPRESSION MODULES ENCODING METHIONINASE, PURIFIED RECOMBINA
                                                                                      THEREFROM AND
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Pred. No. 1
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                                                                                                        PURIFIED RECOMBINANT METHIONINASE PRODUCED
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ZIP: 20006-1888
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk

STATE: I

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US-08-642-541-1
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Best Local Similarity
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TELEX: 90-4030
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Millman, Robert A.
REGISTRATION NUMBER: 36,217
REFERENCE/DOCKET NUMBER: 3127
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 887-1500
TELEFAX: (202) 822-0168
                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: YUYING, 7
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
           SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/642,541 FILING DATE: 03-MAY-1996 CLASSIFICATION: 424 ATTORNEY/AGENT INFORMATION: NAME: Millman, Robert A. REGISTRATION MUMBER: 36,217 REFERENCE/DOCKET NUMBER: 31276-20002.21
                                                                                                                                                                               COUNTRY: USA
ZIP: 20006-1888
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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LENGTH: 1369 base pairs
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                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        372
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                                                                                                                                                                                                                                                                                                                     CITY:
                                                                                                                                                                                                                                                                                                                                   STREET:
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2000 Pennsylvania Avenue, NW
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                                                                                                                                                                                                                                                                                                                                                                                                         HIGH EXPRESSION MODULES ENCODING
METHIONINASE, PURIFIED RECOMBINANT METHIONINASE PRODUCED
THEREFROM AND USES THEREOF
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Pred. No. 1.4e+02;
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Query Match
Best Local Similarity
Watches 20; Conserva
Search completed: September 10, 2002, 01:51:28 Job time: 4427 sec
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                                                                                                                                                                                                                                      TELEFAX: (202) 822-016
TELEX: 90-4030
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                 TELEPHONE: (202) F
                                                         998 CTGGGCAACACCCTGTACGGCTGCA 974
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 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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AA292448 xt29f01.r
BIE23209 603039472
BB374531 BB374531
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BIO87310 602850965
A1174183 uc07b07.r
BE543967 6011070480
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BE254933 601111886
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65.3	65.3	65.3	65.3	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	68.0	68.0	68.7	68.7
878	794	499	99	1040	1014	716	691	677	663	658	653	579	572	563	547	536	530	530	492	437	407	369	336	851	565	1131	828
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CNS037B8	вм007478	вн389734	AA738943	CNS03KIE	AL518419	вJ013567	AL593991	BG037489	вJ093942	AW642247	AV871222	вJ094267	вл035192	BG710692	вJ038957	AW828856	вJ096360	BG364270	АJ283475	AW829955	BE578204	AA594466	AW829906	BM008260	AZ026632	BF984155	BF345759
AL231101 Tetraodon	BM007478 603616745	BH389734 AG-ND-125	AA738943 vv68d06.r	AL248207 Tetraodon	AL518419 AL518419	~1	AL593991 AL593991	BG037489 dc51h04.y	N		➣		в 035192 в 035192		вJ038957 вJ038957	AW828856 ra69a03.y	вJ096360 вJ096360	BG364270 dc91g07.y		AW829955 ra48c04.y		AA594466 nl94d03.s	AW829906 ra47cll.y	60361689	AZ026632 RPCI-23-3	BF984155 602306859	BF345759 602017820

## ALIGNMENTS

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VERSION
KEYWORDS
SOURCE
ORGANISM
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AW784595
LOCUS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                             Lita Annenberg Hazen Genome Sequencing Center Cold Spring Harbor Laboratory PO Box 100, Cold Spring Harbor, NY 11724, USA Tel: 516 367 8884 Fax: 516 367 8874 Email: mccombie@cshl.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AW784595 405 bp mRNA linear EST 19-MAY-2000 zb63h10.gl Canis cDNAs from mdck cells Canis familiaris cDNA clone zb63h10.5′, mRNA sequence.

AW784595
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                                                                                                                                                                                                                                                                Plate: zb63 row: h column: 10
Seq primer: -40M13RevUniv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: W. Richard McCombie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Expressed sequence tags from Canis familiaris (dog) Unpublished (2000)
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (bases 1 to 405)
                    /clone_lib="Canis cDNAs from mdck cells"
/note="Vector: Lambda Zap II; The library was provided Greg Hannon (Cold Spring Harbor Laboratory). This library is oligo(dT) primed using stratagene zap cDNA
synthesis kit. It was made from exponentially growing mdck
                                                                                                                      /organism="Canis familiaris"
/db_xref="taxon:9615"
/clone="zb63h10"
                                                                                                                                                                                                                   Location/Qualifiers
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mRNA sequence.
BE297480
                           BE297480 699 bp n
601176041F1 NIH_MGC_17 Homo sapiens
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29; Conser
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BP 191 91006 EVRY cedex - France
Email: segref@genoscope.cns.fr, Web : www.
Location/Qualifiers
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Contact: Genoscope
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AL529876 LTI_NFL001_NBC4 Homo
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                                                                                                                                                                                                                                                                                           /note-*Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-stranded cDNA was digested with Not I and cloned into the Not I and Eco RV sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies. Contact: Feng Liang Life Technologies. Contact: Feng Liang Life Term cive Rockville, Maryland 20850, USA Fax: (1) 301 610 8371 Email: fliang@lifetech.com URL: http://fulllength.invitrogen.com*

a 319 c 287 g 141 t 6 others
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any library related inquiries."
a 138 c 132 g 68 t 2 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="CSODD005YH10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="neuroblastoma cells"
/lab_host="DH10B"
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96.7%;
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Best Local Similarity 96.6
Matches 28; Conservative
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                                           Hillier, L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jost,S., Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M., Martin,J., Moore,B., Schellenberg,K., Steptoe,M., Tan,F., Theising,B., White,Y., Wylie,T., Waterston,R. and Wilson,R.
WashUr Merck EST Project 1997
Unpublished (1997)
Contact: Wilson RK
                                                                                                                                                                                                                                                                                                                                                                                                                       zw31a04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone
IMAGE:770862 5' similar to TR:G1216398 G1216398 VEGF RELATEI
ISOFORM VRF167 PRECURSOR. ;, mRNA sequence.
Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. ]
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High quality sequence stop: 657.
Location/Qualifiers
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Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at: image.llnl.gov
plate: LLCM205 row: b column: 12
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Tissue Procurement: ATCC
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Contact: Robert Strausberg, Ph.D.
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1 (bases 1 to 699)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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/tissue_type="rhabdomyosarcoma"
/tab_host="DHIUB (phage-resistant)"
/note="Organ: muscle; Vector: pOTB7; Site_1: EcoRI;
/note="Organ: muscle; Vector: pOTB7; Site_1: EcoRI;
/note="Organ: muscle; Vector: pOTB7; Site_2: Using the Directionally cloned into EcoRI/XhoI sites using the Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies)."
a 247 c 201 g 121 t
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/db_xref="taxon:9606"
/clone="IMAGE:3531179"
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96.6%;
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Best Local :
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                                                                                                 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM9772 row: d column: 15
High quality sequence stop: 711.
Location/Qualifiers
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National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mRNA sequence.
BF582738
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Seq_primer: -28ml3 rev2 ET from Amersham
                                                                                                                                                                                                                                                                                                Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus (bases 1 to 799)
                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
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/clone="IMAGE:770862"
                                 /strain="FVB/N"
/db_xref="taxon:10090"
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M.Fatima Bonaldo. "
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/clone="IMAGE:4208222"
/clone_lib="NCI_CGAP_Co24"
                                                                     /organism="Mus musculus"
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musculus cDNA clone IMAGE:4208222 5',
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CTGGGCAGCACCAAGTCCGGATGCAGGTAC 158
                     BM007641 919 bp mRNA linear EST 30-OCT-2001 603617063F1 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:5441079 5',
                                                                                   28;
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plate: LLCM1914 row: m column: 16
High quality sequence stop: 669.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 919)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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Clone distribution: MGC clone distribution information can be
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/note="Organ: colon; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: Salı; Cloned unidizectionally. Primer: Oligo dT.
Average insert size 1.6 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
a 241 c 203 g 145 t
                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/organism="Homo sapiens"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/clone="IMAGE:5441079"
/clone="IMAGE:5441079"
/clone_Iib="NIH_MGC_113"
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/lab_host="DH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)"
/clone="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2:
ECORI; cDNA made by oligo-dT prining Directionally cloned
into EcoRI/XhoI sites using the following 5' adaptor:
GCCACGAG(G). Library constructed by Ling Hong in the
laboratory of Gerald M. Rubin (University of California,
                                                                                                                                                                                                    Berkeley) using ZAP-CNA synthesis kit (Stratagene) and
Superscript II RT (Life Technologies). Note: this is a
NIH_MGC Library.<sup>n</sup>
1 230 c 328 g 182 t
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          mRNA sequence.
BI823209
BI823209.1 GI:
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                                                       BI823209
603039472F1 NIH_MGC_115
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Tel: 314 286 1800
Fax: 314 286 1810
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AAA292448
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TRIA linear EST 08-AUG-1997
Zt29f01.rl Soares ovary tumor NbHOT Homo sapiens cDNA clone
IMAGE:723769 5' similar to TR:G1216396 (D1216396 VEGF RELATED FACTOR
ISOFORM VRF186 PRECURSOR: ;, mRNA sequence.
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M.Fatima Bonaldo. "
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/db_xref="taxon:9606"
/clone="IMAGE:723769"
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              ,P., Endo,T., Fukuda,S., Fukunishi,Y., Hara,A., Hayatsu,N.,
Hirozane,T., Hori,F., Ishi,Y., Ishikawa,J., Ishikawa,T., Itoh,M.,
Izawa,M., Kadota,K., Kagawa,I., Kai,C., Kawai,J., Kikuchi,N.,
Izawa,M., Kojima,Y., Kondo,S., Koya,S., Kurihara,C., Kusakabe,M.,
Matsuyama,T., Miki,R., Mizuno,Y., Nakamura,M., Oda,H., Okazaki,Y.,
Ono,T., Owa,C., Saito,H., Sakai,C., Sato,K., Shibata,K., Shibata,
Y., Shigemoto,Y., Shinaqawa,A., Shiraki,T., Sogabe,Y., Sughara,Y.,
T., Shigemoto,Y., Shinaqawa,A., Shiraki,T., Sogabe,Y., Sughara,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                  BB374531 RIKEN full-length enriched, 16 days embryo head Mus musculus cDNA clone C130075112 3' similar to AF032925 Rattus norvegicus vascular endothelial growth factor B 186 precursor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity
26; Conserv
                                                                                                                                                                                                                                                                              Mus musculus
                                                                                                                                                                                                                                                                                                                                                                         sequence.
BB374531
                                                                                                                                                                                      Konno, H.,
                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                    BB374531.1 GI:9087025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BB374531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Plate: LLAM11449 row: p column: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Robert Strausberg, Ph.D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene
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                                                                                                                                                                                                                                                                                                         house mouse
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria;
1 (bases 1 to 685)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cDNA Library Preparation: Life TechnocDNA Library Arrayed by: The I.M.A.G.
Suzuki, H., Suzuki, H.,
                                                                                                                                                                                                              (bases 1 to 266)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="Organ: pooled brain, lung, testis; Vector: pcMV-SpORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27; 1 male lung, age 27; and 1 male testis, age 69. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.8 kb; insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 021. Note: this is a NIH_MGC Library."
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/clone="IMAGE:5180416"
/clone_11b="NIH_MGC_115"
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100.0%; Pr
                                                                                                                                                                                                                                 Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chordata;
Primates;
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Pred. No.
Tagawa, A.,
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8.2;
Takahashi, F.,
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TITLE
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AZ341037/c
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                                                                                                   CTGCGCAACACCAATTCCGAATGCAGATCC 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: genome-res@gsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp/
Carninci.p., Nishlyama.y., Westover,A., Itoh,M., Nagaoka,S., Sasaki
,N., Okazaki.y., Muramatsu,M. and Hayashlzaki,Y.
Thermostabilization and thermoactivation of thermolabile enzymes by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ,Y. and Hayashizaki,Y. Automated filtration based high-throughput plasmid preparation system. Genome Res. 9 (5), 463-470 (1999)
Carninci,P. and Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   trehalose and its application for the synthesis of full le cDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998) Itoh, M., Kitsunai, T., Akiyama, J., Shibata, K., Izawa, M., K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIKEN Mouse ESTs (Konno, H., et al.) Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Yoshihide Hayashizaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T., Tsunoda,Y., Watahiki,A., Watanabe,S., Yamamura,T., Yamanaka,I., Yano,R., Yasunishi,A., Yokota,T., Yoshida,K., Yoshiki,A., Yoshino,M., Muramatsu,M., and Hayashizaki,Y.
  AZ341037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tomaru,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramatsu,M., Okazaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tel: 81-45-503-9222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     further details
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                                                                                                                                                                                                       Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              High-efficiency full-length cDNA cloning. Methods Enzymol. 303
                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by
                                                                                                                                                                                                                                                                                                                                               modified pBluescript KS(+) after bulk excision from Lambda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="head"
/dev_stage="16 days embryo"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="C130075I12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="Site_1: SalI; Site_2: BamHI; cDNA library was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /sex="mixed"
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86.7%;
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                                                                                                                                                                                                     Score 23.6;
Pred. No. 55;
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  linear
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  GSS 29-SEP-2000
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REFERENCE
AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Erro
Plate: 0073 row: B column: 1:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High quality sequence stop: 555
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tel: 801 585 5606
Fax: 801 585 7177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mouse whole genome scaffolding with paired end reads from 10kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dunn, D., Aoyagi, A.,
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,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                Similarity
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                                                                                          Conservative
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                                                                                                                                                                                                                              adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."

173 c 138 g 112 t
                                                                                                                                                                                                                                                                                                                 adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (g114732114)gblaF129072.1), a copy-number inducible derivative of plasmid RI. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
/note="Vector: PWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackso
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Mus musculus"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /sex="Male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="Mouse 10kb plasmid UUGC1M library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone="UUGC1M0073B15"
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                                                                                                             78.7%;
86.7%;
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                                                                                                                Pred.
                                                                                                                                   Score 23.6;
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RESULT 11 AA073660

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                                                               ORGANISM
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                               52
                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished (1996)
Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                   mRNA sequence.
                                                                                                                                                                                                                           BI087310 579
602850965F1 NIH_MGC_10 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.
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Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M.,
Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B.
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Eukaryota; Metazoa;
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                                                         Homo sapiens
                                                                                                                                                BI087310.1 GI:14505640
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n quality sequence stop: 411.
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314 286 1810
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/note="organ: heart; Vector; pBluescript SK-; Site_1:
/note="organ: heart; Vector; pBluescript SK-; Site_1:
/note="organ: heart; Vector; pBluescript SK-; Site_1:
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Primer.
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/note="organ: heart; Vector; Primer.
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/note="organ: heart; Vector; Pluescript SK-; Site_1:
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/note="organ: heart; Vector; Pluescript SK-; Vector; Plu
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/db_xref="taxon:10090"
/clone="IMAGE:535122"
/clone_lib="Stratagene mouse heart (#937316)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="heart"
/dev_stage="13 day embryos"
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Primates;
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Pred. No. 1.9e
0; Mismatches
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Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis,
Tel: 314 286 1810
Fax: 314 286 1810
                                                                                                                                                                                                                                                    Unpublished (1996)
Contact: Marra M/Mouse EST Project
                                                                                                                                                                                                                                                                                                                                             Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
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IMAGE:1397269 5' similar to SW:VEGB_MOUSE P49766 VASCULAR
ENDOTHELIAL GROWTH FACTOR B PRECURSOR ;, mRNA sequence.
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammallan Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: ATCC
  Seq primer: -28m13 rev2 ET from Amersham High quality sequence stop: 378.
                                                                   This clone is available royalty-free the IMAGE Consortium (info@image.llnl.gov)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
                                                  MGI:908985
                                                                                                                Email: mouseest@watson.wustl.edu
                                                                                                                                                                                                                                                                                                    The WashU-HHMI Mouse EST Project
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        louse mouse.
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1 to 389)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:9606"
/clone="IMAGE:4992305"
/clone_lib="NIH_MGC_10"
/cell_line="MGC36"
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211 c
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100.0%; Pr
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sequence
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Rođentia;
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Pred. No.
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5.4e+02;
thes 0;
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DNA clone
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov Tissue Procurement: ATCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mRNA sequence
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CDNA Library Arrayed by: Incyte Genomics, Inc.
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
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National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
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/note-"Organ: cervix; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT Average insert size 1.4 kb. Library prepared by Life
                                                                      /organism-"Homo sapiens"
/db_xref-"taxon:9606"
/clone="IMAGE:345642"
/clone_lib-"NIH_MGC_12"
/tissue_type-"cervical carcinoma cell line"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              constructed and normalized by Bento Soares and M.Fatima
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/strain="C57BL/6J"
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                                                         /lab_host="DH10B"
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/dev_stage="4 weeks"
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/clone="IMAGE:1397269"
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RESULT 16
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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BE254933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
plate: LLCM1157 row: f column: 11
High quality sequence stop: 701.
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                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                              /Clone_lib="NIH_MGC_43"
//Lissue_type="normal pigmented retinal epithelium"
//Lissue_type="normal pigmented retinal epithelium"
//Lab_host="DH10B (phage-resistant)"
//note="Norgan: eye; Vector: pOTB7; Site_1: XhoI; Site_2:
ECORI; cDNA made by oligo-dT priming. Directionally
cloned into ECORI/XhoI sites using the following 5'
cloned into ECORI/XhoI sites using the following 5'
adaptor: GCCACGAG(G). Library constructed by Ling Hong
in the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library. | "
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                                                                                                                                                                            Score 20.6; DB 10 Pred. No. 7.8e+02;
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                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleoston Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 793)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA sequence.
BE547100
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: image.llnl.gov Plate: LLCM151 row: 1 column: 21
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cDNA Library Preparation: Life Technologies, cDNA Library Arrayed by: Incyte Genomics, In
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/tissue_type="retinoblastoma"
/lab_host="DHIDB (phage-resistant)"
/lab_host="DHIDB (phage-resistant)"
/lab_host="DHIDB (phage-resistant)"
/lab_nost="DHIDB (phage-resistant)"
/lab_nost="DHIDB (phage-resistant)"
/lab_nost="DHIDB (polar)"
/lab_nost="DHIDB (polar)"
/lab_nost="DHIDB (polar)"
/lab_nost="DHIDB (polar)"
/lab_nost="DHIDB (polar)"
/lab_nost="DHIDB (place)"
/lab_nost="DHI
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/db_xref="taxon:9606"
/clone="IMAGE:3352484"
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lone IMAGE:3458856 5',
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Best Local S
Matches 23
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                                                                                                                                                                                                                                                                                                                              Email: cgapbs r@mail.nlh.gov
Tissue Procurement: David N. Louis, M.D.
CDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            828 bp 60201759 828 bp 602017800F1 NCI_CGAP_Brn67 Homo 5', mRNA sequence.
BF345759
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Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM8450 row: m column: 01
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Location/Qualifiers
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/lab_host="DH10B (T1 phage-resistant)" // Note="Organ: brain; Vector: pCMV-SPORE; Site_1: NotI; Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT Average insert size 2.3 kb. Constructed by Life Technologies. Note: this is a NCI_CGAP Library." a 266 c 265 g 150 t
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273 c 239 g 142 t
                                                                                                                                                              /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:4153397"
/clone_lib="NCI_CGAP_Brn67"
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/db_xref="taxon:9606"
/clone="IMAGE:3458856"
                                                                                                                             loss"
                                                                                                                                            tissue_type="anaplastic oligodendroglioma with 1p/19q/
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/tissue_type="cervical carcinoma cell line"
/lab_host="DH10B"
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.9e+02;
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                                           DNA sequence.
AZ026632
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RPCI-23-345P3.TJ RPCI-23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert Strausberg, Ph.D.
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
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                           AZ026632.1 GI:7102016
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 house mouse
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                                                                                                                                                                                                                                                                                                     /tissue_type="duodenal adenocarcinoma, cell line"
/lab_host="DHIOB (phage-resistant)"
/note="Organ: small intestine; Vector: pCMV-SPORT6;
Site_1: NotI; Site_2: SalI; Cloned unidirectionally;
oligo-dT primed. Average insert size 1.767 kb. Library
enriched for full-length clones and constructed by Life
Technologies. Note: this is a NIH_MGC Library."
a 358 c 318 g 190 t
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/clone="IMAGE:4397966"
/clone_lib="NIH_MGC_88"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
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85.2%;
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Primates;
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                                                                                                                                                                                                                                 Score 20.6; DB 10; Pred. No. 8.3e+02;
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                                                                    565 bp DNA linear GSS 25-FEB-2000 Mus musculus genomic clone RPCI-23-345P3,
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ORGANISM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD
Tel: 301 838 0200
Fax: 301 838 0208
                                                                                                                                                                                                                                                                   mRNA sequence.
BM008260
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603616890F1 NIH_MGC_113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clones are derived from the mouse BAC library RPCI-23. For BAC library availability, please contact Pieter de Jong (pieter@deJong.med.buffalo.edu). Clones may be purchased from BACPAC Resources (http://bacpac.med.buffalo.edu/orderingframe.htm) or from Resea ch Genetics (info@resgen.com). BAC end page: http://www.tigr.org/tdb/bac_ends/mouse/bac_end_intro.html plate: 345 row: p column: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and Fraser, C.M.
Mouse BAC End Sequences from Library RPCI-23
Unpublished (1999)
Other_GSSs: RPCI-23-345P3.TV
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B., Levins,M., Mcgann,S., Tsegaye,G., Geer,K., Krol,M.,
Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
                                             Unpublished (1999)
                                                                  NIH-MGC http://mgc.nci.nih.gov/.
                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 851)
                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                              BM008260.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia; Eutheria;
1 (bases 1 to 565)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: szhao@tigr.org
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:10090"
/clone="RPCI-23-345P3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Mus musculus"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone_lib="RPCI-23"
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Rodentia;
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Sciurognathi; Muridae;
                                                                       Mammalian
                                                                                                                                                                                                                                                                                                              mRNA linear EST 30-OCT-2001 s cDNA clone IMAGE:5440486 5',
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1 (bases 1 to 336)

MCCarter,J., Clifton,S., Chiapelli,B., Pape,D., Martin,J., Wylie,T., Dante,M., Marra,M., Hillier,L., Kucaba,T., Theising,B., Bowers,Y., Clifton,S., Beller,J., Franklin,C., Tsagareishvili,R., Gibbons,M., Ritter,E., Bennett,J., Franklin,C., Tsagareishvili,R., Ronko,I., Kennedy,S., Maguire,L., Beck,C., Underwood,K., Steptoe,M., Allen,M., Person,B., Swaller,T., Harvey,N., Schurk,R., Kohn,S., Shin,T., Jackson,Y., Cardenas,M., McCann,R., Waterston,R. and
                                                                                                                                                                                                                                                                             Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                     The Washington Univ. Nematode EST Project, 1999 Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished (1999)
                                                                                                                                 Sequencing by: Washington University Genome Sequencing
                                                                                                                                                                                 The library was constructed by Uma Rao and David Bird (david_bird@ncsu.edu) at North Carolina State Univers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: McCarter JP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The Washington Univ. Nematode EST Project, 1999
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Plate: LLCM1913 row: d column:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDNA Library Preparation: Ling Hong/Rubin Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                primer: -40RP from Gibco
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quality sequence stop: 327.
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//lab_host="PHP10B (phage-resistant)"
/lab_host="PHP10B (phage-resistant)"
/note="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2: RecrI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH_MGC Library."

219 c 244 g 154 t 1 others
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/db_xref="taxon:9606"
/clone="IMAGE:5440486"
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Pred. No. 9.5e+02;
0; Mismatches 6
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Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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n194d03.s1 NCI_CGAP_Col0 Homo
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                      Seq primer: -40ml3 fwd. ET from Amersham
                                                                                                                                                                                                                                                                                                                                                                                                                                           Tissue Procurement: Ilan Kirsch, M.D., Michael R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumor Gene Index
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National Cancer Institute, Cancer Genome Anat
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             modified polylinker; 1st strand cDNA was prepared from RRR+ colon tumor, and was then primed with a Not I oligo(dT) primer. Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT/T3 vector. Library is normalized. Library was constructed by Bento Soares and M. Fatima Bonaldo (N-Soares4). "
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/db_xref="taxon:9606"
/clone="IMAGE:1058309"
                                                                                                                                                                                                                      /clone_lib="NCI_CGAP_Co10"
/tissue_type="colon tumor RER+"
/lab_host="DH10B"
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/dev_stage="enriched for 2nd stage juveniles"
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/db_xref="taxon:6306"
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Pred. No. 1.2e
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clone IMAGE:1058309
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    l Similarity
23; Conser
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Seq primer: -40Rp from Gibco.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 McCarter,J., Clifton,S., Chiapelli,B., Pape,D., Martin,J., Wylle,T., Dante,M., Marra,M., Hillier,L., Kucaba,T., Theising,B., Bowers,Y., Gibbons,M., Ritter,E., Bennett,J., Franklin,C., Tsagareishvili,R., Ronko,I., Kennedy,S., Maguire,L., Beck,C., Underwood,K., Steptoe,M., Allen,M., Person,B., Swaller,T., Harvey,N., Schurk,R., Kohn,S., Shin,T., Jackson,Y., Cardenas,M., McCann,R., Waterston,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The library was constructed by Dr. Andrew Kloek (kloek@biology.wustl.edu) at Divergence LLC, and Brandi Chiapelli (bchiapel@watson.wustl.edu) and Dr. Jim McCarter (jmccarte@watson.wustl.edu) at Washington University Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: McCarter JP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (1999)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 est@watson.wustl.edu
                                                                                                                                                   /note-"Vector: pCRII-TOPO; SL1-Oligo(dT) PCR-based library, Meloidogyne javanica cDNA PCR products of size approximately 600-1200 nucleotides containing SLI on the 5' end and oligo(dT) on the 3' end were non-directionally cloned into pCRII-TOPO (Invitrogen) following the Topo TA cloning protocol. cDNA products were size separated. The cDNA insert can be excised by digestion with EcoRI. The Library was constructed by Dr. Andrew Kloek at Divergence LLC and Brandi Chiapelli and Dr. James McCarter at Washington University, St. Louis. Nematodes were provided by Dr. David Bird of North Carolina State University."
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Chiapelli McCarter"
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/lab_host="DH10B"
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/db_xref="taxon:6303"
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Score 20; DB 10;
Pred. No. 1.2e+03;
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McCarter, J., Clifton, S., Chiapelli, B., Pape, D., Martin, J., Wylie, T.
McCarter, J., Clifton, S., Chiapelli, B., Pape, D., Martin, J., Wylie, T.
Dante, M., Marra, M., Hillier, L., Kucaba, T., Theising, B., Bowers, Y.
Gibbons, M., Ritter, E., Bennett, J., Franklin, C., Tsagareishvili, R.,
Ronko, I., Kennedy, S., Maguire, L., Beck, C., Underwood, K., Steptoe, M., Allen, M., Person, B., Swaller, T., Harvey, N., Schurk, R., Kohn, S.
                           AJ283475 492 bp
4A3B-AAC-B-03-F Anopheles gambiae
gambiae cDNA clone 4A3B-AAC-B-03,
gambiae cDNA clone
AJ283475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: est@watson.wustl.edu
The library was constructed by Uma Rao and David Bird
(david_bird@ncsu.edu) at North Carolina State University.
Sequencing by: Washington University Genome Sequencing Ce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The Washington Univ. Nematode EST Project, 1999
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
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cDNA 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tel: 314 286 1800
Fax: 314 286 1810
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Nematoda; Chromadorea; Tylenchida; Tylenchina;
Tylenchoidea; Heteroderidae; Meloidogyninae; Meloidogyne.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   primer: -40RP from Gibco.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note-"Vector: ZAP express - pBKCMV (Stratagene); Site_1: EcoRI; Site_2: XhOI; Oligo (GT) primed library. cDNA was contructed and cloned unidirectionally into the vector within the 5' EcoRI and 3' XhOI sites. This library was constructed by Dr. Uma Rao and Dr. David Bird at North Carolina state University."
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/dev_stage="enriched for 2nd stage juveniles"
/lab_host="XLORL"
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/db_xref="taxon:6306"
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82.1%;
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Pred. No. 1.2e+03;
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                                                      mRNA linear EST 30-JUN-2000 immune competent 4A3B Anopheles
                              mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                       Length 437;
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African
                                                                                                                                                                                                                                                                                                                                                                  BG364270
530 bp mRNA linear EST 08-MAR-2001 dC91907.y1 NICHD XGC 001 Xenopus laevis cDNA clone IMAGE:3404724 5' similar to TR:Q9V812 Q9V812 CG6550 PROTEIN.; mRNA sequence. BG364270
BG364270.1 GI:13253367
                 Email: cgapbs-rémail.nih.gov
Tissue Procurement: Martha Rebbert, Steven L. Klein, Ph.D. cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
                                                                                                     Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                             1 (bases 1 to 530)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy
                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea;
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23; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dimopoulos,G., Casavant,T.L., Chang,S., Scheetz,T., Roberts,C.,
Donohue,M., Schultz,J., Benes,V., Bork,P., Ansorge,W., Soares,M.B.
and Kafatos,F.C.
                                                                                                                                                                                                                                      Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                 Xenopus laevis
                                                                                                                                                                                                                                                                                                                        African clawed frog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               European Molecular Biology Laboratory Meyerhofstrasse 1, 69117 Heidelberg,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Anopheles gambiae pilot gene discovery project: identification
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Pterygota;
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  Sequencing by:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cell_line="immune competent 4A3B"
/lab_host="E. coli DH10B"
/note="wector: pT73D-Pac (Pharmacia) with a modified
polylinker; Site_1: EcoRI; Site_2: NotI; sequenced from
the forward priming site that reads from the 3' end of
cDNA. The 4A3B is a directionally cloned and normalized
cDNA library that was constructed from the 4A3B cell line
oligo-T primed cDNA according to: Bonaldo, Lennon & Soares
(1996): Normalization and Subtraction: Two Approaches To
Facilitate Gene Discovery, Genome Research 6, 791-806."
a 155 c 157 g 93 t
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/strain="4A r/r"
/db_xref="taxon:7165"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="Anopheles gambiae immune competent 4A3B"
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TGAGCAGCCCCATGTACGGATCCAGATC 233
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Contact: Tadasu Shin-i
Center For Genetic Resource Information
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                                                                                                                                                                                                                                                                                                                                                            Tel:
                                                                                                                                                                                                                                                                                                                                                                         National Institute of Genetics
1111 Yata, Mishima, Shizuoka 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Expressed genes in X. laevis embryo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
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                                                                                                                                                             173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 530)
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81-559-81-6855
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Location/Qualifiers
                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                         tshini@genes.nig.ac.jp.
Location/Qualifiers
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/Clone_Time*NICHD XGC OOl"
/Clone_Libs*NICHD XGC OOl"
/tissue_type="oocytes"
/lab_host="DHIOB (phage-resistant)"
/lab_host="PHIOB (phage-resistant)"
/note="Vector: pCMV-SPORT6; Site_1: Not1; Site_2: Sal1;
/note="Vector: pCMV-SPORT6; Site_1: Not1; Site_2: Sal1;
/note="ionic for included by Life Technologies."
size 2.2 kb. Constructed by Life Technologies."
a 113 c 131 g 114 t 1 others
                                                                                                                                                             /dev_stage="stage 10.5"
118 c 128 g 1:
                                                                                                                                                                                                                          /organism="Xenopus laevis"
/db_xref="taxon:8355"
/clone="XLI53k16"
/clone_1ib="NIBB Mochii normalized Xenopus
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/db_xref="taxon:8355"
/clone="IMAGE:3404724"
                                                                                                                                                                                                          library"
                                                                                                                                                                                           tissue_type="whole embryo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Terasaka, C., Mochii, M.,
                                                                             66.7%;
82.1%;
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82.1%;
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Pred. No. 1.3e
0; Mismatches
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                                                                             DB 10;
1.3e+03;
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1.3e+03;
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                                                                                                                                                                                                                             early gastrula
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SOURCE
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AW828856/c
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KEYWORDS
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Best Local
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                                                                                                                                                                                                                                                   214
                                                                                                                                                                                                                                               547 bp mRNA linear EST 07-DEC-leves of NIBB Mochii normalized Xenopus neurula library Xenopus laevis cDNA clone XL045p19 5', mRNA sequence.
BJ038957
BJ038957.1 GI:17408453
EST.
Africa.
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1 (bases 1 to 536)
1 (bases 1 to 536)
McCarter, J., Clifton, S., Chiapelli, B., Pape, D., Martin, J., Wylie, T.,
McCarter, J., Clifton, S., Chiapelli, B., Pape, D., Martin, J., Wylie, T.,
Dante, M., Marra, M., Hillier, L., Kucaba, T., Theising, B., Bowers, Y.,
Dante, M., Ritter, E., Bennett, J., Franklin, C., Tsagareishvili, R.,
Glibbons, M., Ritter, E., Bennett, J., Franklin, C., Tsagareishvili, R.,
Ronko, I., Kennedy, S., Maguire, L., Beck, C., Underwood, K., Steptoe,
M., Allen, M., Person, B., Swaller, T., Harvey, N., Schurk, R., Kohn, S.,
M., Allen, M., Person, B., Swaller, T., McCann, R., Waterston, R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished (1999)
Contact: McCarter JP
Contact: McCarter JP
The Mashington Univ. Nematode EST Project, 1999
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ra69a03.yl Bird-Rao Meloidogyne incognita J2 Meloidogyne incognita CDNA 5' similar to WP:C36E6.B CE20542 ;, mRNA sequence.

AW828856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The library was constructed by Uma Rao and David Bird (david_bird@ncsu.edu) at North Carolina State University. Sequencing by: Washington University Genome Sequencing Cer
Xenopus laevis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: est@watson.wustl.edu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Meloidogyne
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                   African clawed frog.
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                                                                                                                                                                                                                                                                                                                                                      Similarity
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Location/Qualifiers
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314 286 1810
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note-"Vector: ZAP express - pBKCMV (Stratagene); Site_1: ECORI; Site_2: xhoI; Oligo (GT) primed library. cDNA was contructed and cloned unidirectionally into the vector within the 5' ECORI and 3' XhoI sites. This library was constructed by Dr. Uma Rao and Dr. David Bird at North Carolina state University."

Carolina state University."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone_lib="Bird-Rao Meloidogyne incognita J2"
/dev_stage="enriched for 2nd stage juveniles"
/lab_host="XLORL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Meloidogyne incognita"
/db_xref="taxon:6306"
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Center St.
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TITLE
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BG710692
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AUTHORS
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JOURNAL
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Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence.
BG710692
BG710692.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gallus gallus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Archosauria; Aves; Neognathae; Galliformes; Phasian;
Phasianinae; Gallus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BG710692 563 bp mRNA linear EST 08-MAY-200 pglln.pk004.k8 Normalized Liver Library Gallus gallus cDNA clone pglln.pk004.k8 5' similar to pir|S15904|S15904 alpha-1 proteinase inhibitor III, variant 1 precursor - rat emb|CAA37176.1| (X52984)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1111 Yata, Mishima, Shizuoka 411-8540, Japan
Tel: 81-559-81-6856
Fax: 81-559-81-6855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Expressed genes in X. laevis embryo Unpublished (2001)
                                                                                                                                                                                                                           University of Delaware
40 Townsend Hall, Newark,
Tel: 302 831-1345
Fax: 302-831-3411
                                                                                                                                                                                                                                                                                                                                                             Unpublished (2001)
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Location/Qualifiers
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                                                                                                                                                                                                      Email: joan@UDel.Edu, www.chickest.udel.edu.
                                                                                                                                                                                                                                                                                                                 Molecular Endocrinology
                                                                                                                                                                                                                                                                                                                                           Contact: Joan Burnside
                                                                                                                                                                                                                                                                                                                                                                                     Burnside, J., Morgan, R.W. and Cogburn, L.A. Chicken ESTs from a normalized liver library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chicken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      National Institute of Genetics
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1 (bases 1 to 547)
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/db_xref="taxon:8355"
/clone="XL045p19"
/db_xref="taxon:9031"
/clone="pgl1n.pk004.k8"
/clone_11b="Normal1zed Liver Library"
/clone_11b="Normal1zed Liver Library"
/sex="Male and Female"
/tissue_type="liver"
/lab_host="E.coli EMDH10B"
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118 c 132 g
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                                                                                                                                                                                 Location/Qualifiers
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                                                                                                                                    organism="Gallus gallus"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GI:14004642
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82.1%;
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. 1.3e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
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KEYWORDS
SOURCE
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                                                                                                              DEFINITION
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BJ035192/c
                                                                                                                            Locus
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Best Local S
Matches 23
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Best Local
                               ORGANISM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gggcagcaccaagtccggatgcagatcc
                                                                                                                                                                                              TGAGCAGCCCCATGTACGGATCCAGATC
           EST.

African clawed frog.

Xenopus laevis
Eukaryota; Metazoa; Cl
                                                                 Xenopus laevis cDNA clone
BJ094267
BJ094267.1 GI:17594218
                                                                                            BJ094267 S79 bp BJ094267 NIBB Mochii normalized Xeropus laevis cDNA clone XL144p09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Center For Genetic Resource Information National Institute of Genetics 1111 Yata, Mishima, Shizuoka 411-8540, Tel: 81-559-81-6856 Fax: 81-559-81-6855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Expressed genes in X. laevis Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BJ035192
BJ035192.1 GI:17414445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BJ035192 572 bp mRNA linear EST BJ035192 NIBB Mochii normalized Xenopus neurula library laevis cDNA clone XL021e08 5', mRNA sequence.
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23; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kitayama, A., Terasaka, C., Mochii, M.,
 Amphibia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Tadasu Shin-i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xenopodinae; Xenopus.
1 (bases 1 to 572)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xenopus laevis
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                                                                                                                                                                                                                                                               Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         tshini@genes.nig.ac.jp
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Xenopus laevis"
/db_xref="taxon:8355"
/clone="XL021e08"
 Batrachia;
                                                                                                                                                                                                                                                                                                                                 /dev_stage="stage 15"
121 c 146 g
                                                                                                                                                                                                                                                                                                                                                           /tissue_type="whole embryo"
                                                                                                                                                                                                                                                                                                                                                                          library'
                                                                                                                                                                                                                                                                                                                                                                                       /clone_lib="NIBB Mochii normalized
                                                                                                                                                                                                                                                              66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  66.7%;
82.1%;
Chordata; Craniata; Ver; Anura; Mesobatrachia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 20; DB Pred. No. 1.3e 0; Mismatches
                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                 Score 20; DB Pred. No. 1.3e 0; Mismatches
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cches 5;
                                                                                                                                                                                                                                                                                                                                    124 t
                                                                                           Xenopus early gastrula library 509 5', mRNA sequence.
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1.3e+03;
                                                                                                                                                                                                                                                                            DB 10;
                                                                                                                        mRNA
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Vertebrata; I
ia; Pipoidea;
                                                                                                                                                                                                                                                                         Length 572;
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Euteleostomi;
; Pipidae;
                                                                                                                        EST 12-DEC-2001
                                                                                                                                                                                                                                                 0;
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REFERENCE
AUTHORS
TITLE
JOURNAL
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AV871222/c
LOCUS
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ORIGIN
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AUTHORS
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KEYWORDS
                                                                         BASE COUNT
ORIGIN
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Query Match
Best Local s
Matches 23
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JOURNAL
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tgggcagcaccaagtccggatgcagatc
                                                                                                                                                                                                                                Kyoto University
Sakyo-ku, Kyoto, Kyot
Tel: 81-75-753-4081
Fax: 81-75-705-1113
  l Similarity
23; Conser
                                                                                                                                                                                                                                                                                       Unpublished (2000)
Contact: Nori Satoh
Department of Zoology
                                                                                                                                                                                                                                                                                                                                                                            Ciona intestinalis
Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea;
Phlebobranchia; Cionidae; Ciona.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AV871222 Nori Satoh unpublished cDNA library, egg Cic intestinalis cDNA clone rcieg26f08 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  intestinalis cDNA clone
AV871222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center For Genetic Resource Information National Institute of Genetics 1111 Yata, Mishima, Shizuoka 411-8540, Tel: 81-559-81-6856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Xenopodinae; Xenopus.
1 (bases 1 to 579)
Kitayama, A., Terasaka, C.,
                                                                                                                                                                                                                  Email: satoh@ascidian.zool.kyoto-u.ac.jp.
                                                                                                                                                                                                                                                                                                                                 Satoh, N., Satou, Y., Kohara, Y. and Shi
Expressed genes in Ciona intestinalis
                                                                                                                                                                                                                                                                                                                                                                                                                        Ciona intestinalis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AV871222.1
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Contact: Tadasu Shin-i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Expressed genes in X. laevis embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 653)
                                                                                        153
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  Conservative
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                /clone="rcieg26f08"
/clone_lib="Nori Satoh unpublished
/tissue_type="whole animal"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Xenopus laevis"
/db_xref="taxon:8355"
/clone="XL144p09"
                                                                                      /dev_stage="egg"
140 c 146
                                                                                                                                                          /organism="Ciona intestinalis"
/db_xref="taxon:7719"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="whole embryo"
/dev_stage="stage 10.5"
121 c 145 g 120 t
                                                                                                                                                                                                     Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone_lib="NIBB Mochii normalized Xenopus early gastrula
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:16858746
              66.7%;
82.1%;
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82.1%;
                                                                                                                                                                                                                                                              Kyoto 606-8502,
                                                                                                                                                                                                                                                                                                                                                 Kohara,Y.
  0;
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Pred. No. 1.3e
0; Mismatches
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  Score 20; DB 9;
Pred. No. 1.3e+03
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                   and Shin-i,T
                                                                                        211
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1.3e+03;
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                               Length 653;
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cy, egg Ciona
  Indels
                                                                                                                                cDNA library,
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Gaps

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AW642247/c
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BASE COUNT
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1 (bases 1 to 658)
Blackshear, P.J., Lai, W.S., Thorn, J.M., Kennington, E.A., Staffa, N.G.
Jr., Moore, D.T., Bouffard, G.G., Beckstrom-Sternberg, S.M., Touchman
J.W., Bonaldo, M.F. and Soares, M.B.
The NIEHS Xenopus maternal EST project: interim analysis of the
first 13,879 ESTs from unfertilized eggs
Gene 267 (1), 71-87 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fax: 919 541-4571
Email: black009@niehs.nih.gov
Clone is available through Research Genetics, Inc., 2130 Memori
Parkway, Huntsville, AL 35901
phone 800-533-4363 ext.cdna, fax 256-536-9016 att:cdna, email
cdna@resgen.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Perry J. Blackshear office of Clinical Research and Laboratory of Signal Transduction National Institute of Environmental Health Sciences A2-05 NIEHS, 101 Alexander Drive, Research Triangle Park, NC 27709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AW642247
658 bp mRNA linear cml7e04.wl Blackshear/Soares normalized Xenopus egg laevis cDNA clone PBX0116E04 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FORWARD: TGTAAAACGACGGCCAGT BACKWARD: CAGGAAACAGCTATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA Sequencing and analyses 
Health Intramural Sequencing
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AW642247.1 GI:7399622
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Xenopus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       African clawed frog.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCR PRimers
                        221
                                      /note="Vector: pT7T3-Pac; Site_1: EcoRI; Site_2: NotI;
/note="Vector: pT7T3-Pac; Site_1: EcoRI; Site_2: NotI;
PolyA-selected mRNA was prepared from unfertilized Xenopus
laevis eggs. The library was constructed in the vector
pT7T3-Pac as described in Bonaldo, M.F., Lennon, G. and
Soares, M.B. 'Normalization and subtraction: two
approaches to facilitate gene discovery, Genome Research
6:791-806, 1996. The first strand synthesis used a
NotI-dT18 primer; double stranded cDNAs were ligated to
EcoRI adapters, digested with NotI, and directionally
cloned into the NotI and EcoRI-digested pT7T3-Pac vector.
The library contained approximately 7.2 x 10~5
recombinants, with average insert sizes of 1-1.5 kb."
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                recombinants, with
                                                                                                                                                                                                                                                                                                                                                                /tissue_type="unfertilized egg"
/cell_type="unfertilized egg"
/dev_stage="unfertilized egg"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /sex="female"
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/db_xref="taxon:8355"
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                        with average insert sizes
169 g 137 t
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RESULT 37
BG037489/c
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                                                                                                                       BG037489
677 bp mRNA linear EST 24-JAN-2001 dc51h04.y1 NICHD XGC Emb3 Xenopus laevis cDNA clone IMAGE:3400926 5' similar to TR:Q9V812 Q9V812 CG6550 PROTEIN. ;, mRNA sequence. BG037489
BG037489.1 GI:12480074
EST:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center For Genetic Resource Information National Institute of Genetics 1111 Yata, Mishima, Shizuoka 411-8540, Japan Tel: 81-559-81-6856
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Xenopus laevis
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BJ093942
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: tshini@genes.nig.ac.jp.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Expressed genes in X. laevis embryo Unpublished (2001)
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Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea;
                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea;
                                                                                             Xenopus laevis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kitayama, A., Terasaka, C., Mochii, M.,
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anat
                             Xenopodinae; Xenopus.
1 (bases 1 to 677)
                                                                                                          African clawed frog
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1 (bases 1 to 663)
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/dev_stage="stage 10.5"
144 c 174 g 146 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Xenopus laevis"
/db_xref="taxon:8355"
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82.1%;
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82.1%;
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                                                                                                                                                                 This sequence is from a Xenopus constructed by Aaron M. Zorn.
                                                                                                                                                                                                                      Email: trop@sanger.ac.uk
Sanger Xenopus tropicalis EST project 2001
TROPICALIS_SEQUENCE_ID: TGas004kl4.sp6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             western clawed frog. Silurana tropicalis
                                                                                                                                                                                                         Sequencing primer: SP6
                                                                                                                                                                                                                                                                             Hinxton, Cambridgeshire,
                                                                                                                                                                                                                                                                                                Sanger Centre
                                                                                                                                                                                                                                                                                                                Contact: Huckle E
                                                                                                                                                                                                                                                                                                                                   Sanger Xenopus tropicalis EST 
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                       Rogers,J.
                                                                                                                                                                                                                                                                                                                                                                                  Huckle, E., Taylor, R., McMurray, A., Ashurst, J.L.,
                                                                                                                                                                                                                                                                                                                                                                                                     Xenopodinae; Silurana.
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Amphibia; Batrachia; Anura; Me
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Contact: Robert Strausberg, Ph.D.
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/tissue_type="embryo (stages 24-25)"
/lab_host="DH1OB (phage-resistant)"
/note="Vector: pCMV-SPORT6; Site_1: Not1; Site_2: Sal1;
/cloned unidirectionally. Primer: Oligo dT. Averrage insert
size 1.7 kb. Constructed by Life Technologies. Note: This
is a Xenopus Gene Collection (XGC) library."
a 135 c 168 g 157 t
/dev_stage="gastrula (stages 10.5-13 mixed)"
/lab_host="Escherichia coli XL1-blue"
/note="Vector: pCS107; Site_1: EcoRI; Site_2: NotI; cDNA
                                                        /clone="TGas004k14"
/clone_lib="XGC-gastrula"
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/db_xref="taxon:8355"
/clone="IMAGE:3400926"
                                                                                            /organism="Silurana tropicalis"
/db_xref="taxon:8364"
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Mesobatrachia; Pipoidea; Pipidae;
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172 CTGGGCAGCACCACCTCCTGTTGCAGGT 199
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AL518419
AL518419.1
EST.
                                                                         AL518419 LTI_NFL011_NBC1 Homo sapiens cDNA clone CS0DA009YM24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1111 Yata, Mishima, Shizuoka 411-8540, Japan
Tel: 81-559-81-6856
Fax: 81-559-81-6855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center For Genetic Resource Information National Institute of Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kohara,Y., Shin-i,T., Kimura,T., Narita,T., Jindo,T. Medaka EST Project in Takeda's lab Unpublished (2001)
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23; Conserv
                                                         prime, mRNA
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                      /clone="MF01SSA190G08"
/clone_lib="MF01SSA cDNA"
/sex="mixture of female and male"
/tissue_type="whole embryo"
/dev_stage="segmentation stage 20 - 25"
/dev_stage="segmentation stage 20 - 25"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db_xref="taxon:8090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Oryzias latipes"
/strain="Hd-rR"
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Best Local :
                                                                                       AUTHORS
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1 (bases 1 to 1014)

Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

Full-length CDNA libraries and normalization
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Tetraodon nigroviridis genome survey sequence PUC-Ori end of cloos
033J11 of library G from Tetraodon nigroviridis, genomic survey
                                                                                                                                                                                                                                                                                                                                                   AL248207.1 GI:7969219
GSS; genome survey sequence.
Tetraodon nigroviridis.
Tetraodon nigroviridis
Human gene number estimate provided by genome wide analysis using Tetraodon nigroviridis DNA sequence
                                          Roest-Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fish Bernot, A., Fizames, C., Wincker, P., Brottler, P., Quetier, F., Saurin, W. and Weissenbach, J.
                                                                                                                                                               Charaterization and repeat analysis of the compact
                                                                                                                                                                                    Bouneau,L., Billault,A., Quetier,F., Saurin,W., Bernot,A. Weissenbach,J.
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                                                                                                                                                                                                                                               Tetraodontidae; Tetr
1 (bases 1 to 1040)
                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
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Email: segref@genoscope.cns.fr, Web : www.genoscope.cns.fr.
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                                                                                                                                            freshwater pufferfish
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note-*Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-stranded cDNA was digested with Not I and cloned into the NotI and Eco RV sites of the pCMVSPORT 6 vector. Library is not normalized, but is the control for the normalized libraries. Library was constructed by Life Technologies. Contact: Feng Liang Life Technologies, a division of Invitrogen 9800 Medical Center Drive Rockville, Maryland 20850, USA Fax: (1) 301 610 8371 Email: http://fillogich.com/URL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            http://fulllength.invitrogen.com"
336 c 270 g 231 t
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/db_xref="taxon:9606"
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82.1%;
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Pred. No. 1.4e+03;
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                                                                                                                                            Tetraodon nigroviridis
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                                                                                  Fisher, C.,
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JOURNAL REFERENCE AUTHORS TITLE JOURNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ννδ8dO6.rl Stratagene mouse skin (#937313) Mus musculus cDNA clone IMAGE:1227563 5' similar to gb:X01697 Mouse mRNA fragment for parotid secretory protein (MOUSE);, mRNA sequence. AA738943
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                                                                                                                                                                                                                                                                                                                  Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                            Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (bases 1 to 99)
Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubu
Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M.,
Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B.,
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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AA738943.1
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
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/clone_11b="G"
/note="Genoscope sequence
PUC-Ori"
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/db_xref="taxon:99883"
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                                                                       /organism="Mus musculus"
/strain="C57BL/6"
/db_xref="taxon:10090"
/clone="IMAGE:1227563"
/tissue_type="whole skin"
                                                   /clone_lib="Stratagene mouse skin (#937313)"
                            /sex="females"
                                                                                                                                                                                                  location/Qualifiers
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Pred. No. 1.4e+03;
0; Mismatches 5
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Best Local Similarity
Matches 22; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: bjootusetigr.org
This clone is from an A. gambiae BAC library (ND-TAM) provided by F.H. Collins and sequenced by The Institute for Genomic Research (TIGR). The BAC library was generated from A. gambiae PEST strain DNA. All DNA was extracted from newly hatched first instar larvae on minimize the inclusion of DNA from microorganisms that inhabit the gut. The DNA is derived from mixed sexes of larvae. The BAC library was constructed at Texas A&M University BAC Center University, College Station, Texas 77843-2123, USA using a HindIII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Brendan J Loftus
Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville,
Tel: 301 838 0208
Fax: 301 838 3543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (2001)
Other_GSSs: AG-ND-125L2.TF
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Direct Submission of BAC-end sequences from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BH389734 499 bp AG-ND-125L2.TR ND-TAM Anopheles
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   Conservative
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/lab_host="SOLR (Kanamycin resistant)"
/lab_host="SOLR (Kanamycin resistant)"
/note="Organ: skin; Vector: pBluescript SK-; Site_1:
/note="Organ: skin; Vector: pBluescript SK-; Site_1:
/note="Sold Reserved Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the Content of the 
                                                                                                                                                                                                    /clone_lib="ND-TAM"
/note="Vector: pECBAC1; Site_1:
98 c 77 g 153 t
                                                                                                                                                                                                                                                                                                                                                                               /organism="Anopheles gambiae"
/strain="PEST"
                                                                                                                                                                                                                                                                                                                /clone="AG-ND-125L2"
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                                   65.3%;
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                                   Score 19.6;
Pred. No. 1.
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Pred. No. 1.4e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22; Conservative
                              Tetraodon nigroviridis
                                                   GSS; genome survey sequence. Tetraodon nigroviridis.
                                                                                                                                                                                                        Tetraodon nigroviridis genome survo
001F16 of library G from Tetraodon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLCM1913 row: j column: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Mark Watson
cDNA Library Preparation: Ling Hong/Rubin Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (
Eukaryota;
                                                                                                                      AL231101.1 GI:7890096
                                                                                                                                                                                                                                                                        CNS037B8
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High quality sequence stop: 397.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
1 (bases 1 to 794)
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National Institutes of Health, Mammalian
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/lab_host="DH10B (phage-resistant)"
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Search completed: September 10, 2002, 01:12:19 Job time: 5851 sec
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (12-APR-2000) to the EMBL/GenBank/DDBJ databases This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetraodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
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Roest-Crollius, H., Jaillon,O., Dasilva,C., Bouneau,L., Fisher,C.,
Bernot,A., Fizames,C., Wincker,P., Brottier,P., Quetier,F.,
Saurin,W. and Weissenbach,J.
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/note="Genoscope sequence ID : T0BG001DC08LP1-end : T7"
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AAR27354	AAR22348	AAY33440	AAW86213	AAW86217	AAW80488	AAW04824	AAW86212	AAW86221	AAW86211	AAW86216	AAW86210	AAW86220	AAW86209	AAW00728	AAW86215	AAW86219	AAW86208	AAW86234	AAW86214	AAW86218	AAW86235	AAW80492	AAW04828	AAW86236	AAU29777	AAY08282	AAB24082	AAY08283	AAE09217	AAW80491	AAW04827	AAW00863	AAW00864
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## ALIGNMENTS

RESULT AAW86202

Human VEGF-related factor (VRF)-2 sequence.

16-FEB-1999 (first entry)

AAW86202;

AAW86202 standard; protein;

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VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia; coronary; collateral vessel development; cell growth; migration; heart; lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; VEGF-related factor; VRF; vascular permeability.
                              WPI; 1999-009426/01
                                                                                                                                       05-NOV-1998
                                                                                              25-APR-1997;
                                                                                                                   20-APR-1998;
                                                                                                                                                             WO9849300-A2
                                                                                                                                                                                Homo sapiens
                                                                        (COLL-) COLLATERAL THERAPEUTICS
                                                                                              97US-0842984.
                                                                                                                   98WO-US07801.
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New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate

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AAW86201
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Matches
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New truncated vascular
                                                WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VEGF; VRP; vascular endothelial growth factor; VEGF-related protyrecombinant; truncated; gene therapy; angiogenesis; cardiac ischicoronary; collateral vessel development; cell growth; migration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human vascular endothelial growth factor (VEGF)-B sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mgtvakq1vpscvtvqrcggccpddg1ecvptgqhqvrmqi1mirypssq1gems1eehs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MGTVAKOLVPSCVTVQRCGGCCPDDGLECVPTGO QVB OILMIRYPSSQLGEMSLEEHS
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                                                                                                                                                                                                                                                                                                                                                                                                                           healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 imb
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ischaemia; stroke; peripheral vascular disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   206 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                          97US-0842984
                                                                                                                                                                                                                                      98WO-US07801.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein; 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                           vascular permeability.
  endothelial growth factor-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English.
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Pred. No. 4.7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 206;
  protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                    intestine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein;
ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
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RESULT
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                                                                                          06-DEC-1995;
01-MAR-1995;
06-JUN-1995;
                                          (TUDW-)
                                                                                                                                                                                                                                                                                                                       Endothelial cell; proliferation; vascular endothelial growth factor; VPF VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (VEGF-related protein) subunits that have at least one amino acid (VEGF-related protein) subunits that have at least one amino acid netering the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability.
                                                                                                                                                            01-MAR-1996;
                                                                                                                                                                                             06-SEP-1996.
                                                                                                                                                                                                                           W09626736-A1
                                                                                                                                                                                                                                                          Mus musculus
                                                                                                                                                                                                                                                                                          cancer; metastatic risk; tumour cell;
                                                                                                                                                                                                                                                                                                             embryonic
                                                                                                                                                                                                                                                                                                                                                                                            Heart vascular endothelial growth factor-B167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW04826 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                              28-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This represents the amino acid sequence of human vascular endothelial growth factor (VEGF)-B protein. The invention provides truncated VRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    subunits - lack part of the N-terminal sequence, used to stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 1; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mspllrrlllvallqlartqapvsqfdgpshqkkvvpwldvytratcqprevvvplsmel
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             ζ,
                                          LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                             development; wound healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                          HELSINKI LICENSING
                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                        95US-0569063.
95US-0397651.
95US-0469427.
                                                                                                                                                            96WO-US02957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein; 188
             ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           136
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             Olofsson B,
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Pred. No. 2.3e-60;
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                                            LTD OY
             Pajusola K;
                                                                                                                                                                                                                                                                                            mouse.
                                                                                                                                                                                                                                                                                                          tissue reorganisation; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 188;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     healing, and tissue regeneration/reorganisation. The VEGF proteins of the invention share the angiogenic and other properties of VEGF, but are distributed and expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate angiogenesis in wound healing. Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can also be used diagnostically to quantitatively detectives. Primers complementary to the coding sequences for the proteins of the invention can also be used to detect VEGF-B coding sequences. Quantification of VEGF-B in cancer biopsy specimens may be useful as an indicator of metastatic risk. VEGF-B expression in a cell can be retarded using antisense sequences direct against the VEGF coding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           accelerate angiogenesis in wound healing, also related nucleic acid and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1996-412582/41.
N-PSDB; AAT37910.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                proteins of the invention, which promote endothelial or mesodermal cell-
proliferation. VEGF is also a glycosylated cationic dimer, and is
sometimes referred to as vascular permeability factor (VPF). VEGF has
diverse effects, depending on the specific biological context in which
it is found. VEGF is a potent endothelial cell mitogen, and directly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim
   24-NOV-1998
                                                                                                                      Mus sp.
                                                                                                                                                  Vascular endothelial growth endothelial cell; angiogenes
                                                                                                                                                                                             Murine vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    contributes to induction of angiogenesis in vivo by promoting endothellal cell growth during normal embryonic development, v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vascular endothelial growth factor VEGF-B proteins -
                              US5840693-A
                                                                           Misc-difference
                                                                                                                                                                                                                            29-JAN-1999
                                                                                                                                                                                                                                                         AAW80490;
                                                                                                                                                                                                                                                                                     AAW80490 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tumour cells.
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                                                                                                                                                                                                                                                                                                                                                                                                                   mgnvvkqlvpscvtvqrcggccpddglecvptgqhqvrmqilmiqypssqlgemsleehs
                                                                                                                                                                                                                                                                                                                                                                                                                                   MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18; Page 55-56; 107pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 89.(
21; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             this is
                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          represent the vascular endothelial growth factor (VEGF)
                                                                                       Location/Qualifiers
                                                                                                                                                angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          especially useful
                                                                                                                                                                                                                                                                                     Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89.6%;
89.0%;
                                                            "encoded
                                                                                                                                                                                                                                                                                      188
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                                                                                                                                                                factor; VEGF; proliferation;
                                                                                                                                                                                           growth factor (VEGF)-B167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 644; DB Pred. No. 7.6e 5; Mismatches
                                                          bу
                                                                                                                                               tissue growth;
                                                                                                                                                                                                                                                                                     B
                                                            G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 17;
7.6e-60;
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Best Local :
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01-MAR-1995;
06-JUN-1995;
06-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence represents murine vascular endothelial growth face (VEGF)-B167. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need new blood supplies to grow and proliferate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (LUDW-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                                    Vascular endothelial growth factor 3; VEGF-3; splice variant; vascular expression; lymphatic; bone marrow; colon; heart; kidney; ovary;
                                                                         cancer; wounds;
                                                                                                                            Human
                                                                                                                                                  19-JUN-2000
                                                                                                                                                                             AAY94806;
                                                                                                                                                                                                      AAY94806 standard; Protein; 206 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
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                                                                                                                                                                                                                                                                                                                  mgnvvkqlvpscvtvqrcggccpddglecvptgqhqvrmqilmlqypssqlgemsleehs
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                                                                                                                                                                                                                                                                  qcecrpkkkesavkpd 136
                                                                                                                                                                                                                                                                                                                                           MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS 120
                                                                                                                          VEGF-3
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                          splice
                                                                                                                                                   (first entry)
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95US-0397651.
95US-0469427.
95US-0569063.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96US-0609443
                                                                         autoimmune disease; HIV; inflammation;
                                                                                                                          variant
                                                                                                                                                                                                                                                                                                                                                                                                                                    89.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English.
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                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                      Score 644; DB 20;
Pred. No. 7.6e-60;
5; Mismatches 10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 188;
                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                           heart disease.
                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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24-FEB-2000 WO200009148-A1.

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RESULT
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer, wounds, autoimmune diseases, HIV, inflammation and heart disease. VEGF-3 may also be used to identify its own binding partners. VEGF-3 nucleotides are useful as diagnostic or prognostic markers and a naiternative to restriction fragment length polymorphism (RFLP). The nucleotides are also useful to prepare PCR primers for amplifying an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acids encoding them (AAA15748, AAA15762). The cDNA encoding VEGF-3 was initially isolated from a bone marrow cell line cDNA library. The cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in that the A at position 498 in AAA15748 is not present in AAA15762. VEGF-3 is also expressed in colon, heart, kidney and ovary tissues, this pattern being consistent with vascular and lymphatic specific expression. VEGF-3 proteins and nucleotides are useful in preventing, treating or ameliorating various disorders and conditions associated with the vascular and lymphatic systems. These conditions and disorders include the conditions are conditions associated with the vascular and lymphatic systems. These conditions and disorders include
                                                                                        vace; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody; canoner materials.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New human gene encoding vascular endothelial growth factor 3 and polypeptide encoded by the gene is useful for treating various disorders associated with vascular and lymphatic system -
                                                                                                                                                Endothelial cell; proliferation; vascular endothelial growth factor; VPF;
                                                                                                                                                                                    Vascular endothelial growth factor-B186
                                                                                                                                                                                                                                                                                           AAW04830 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hu J,
              WO9626736-A1.
                                                Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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10-FEB-1999;
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119; Conserv
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99US-0244694.
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                                                                                  tumour cell; mouse.
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Pred. No. 8.4e-60;
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RESULT AAB36296

AAB36296 standard; Protein;

DEX DXX X ID

23-FEB-2001 AAB36296;

(first entry)

Human vascular endothelial

growth factor VEGF-B186

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CC proliferation. VEGF is also a glycosylated cationic dimer, and is
CC proliferation. VEGF is also a glycosylated cationic dimer, and is
CC sometimes referred to as vascular permeability factor (VPF). VEGF has
CC diverse effects, depending on the specific biological context in which
CC it is found. VEGF is a potent endothelial cell mitogen, and directly
CC contributes to induction of angiogenesis in vivo by promoting
CC endothelial cell growth during normal embryonic development, wound
CC healing, and tissue regeneration/reorganisation. The VEGF proteins of
CC the invention share the angiogenic and other properties of VEGF, but are
CC distributed and expressed in tissues differently to VEGF. The proteins
CC antherefore be used to accelerate angiogenesis in wound healing.
CC antibodies against the proteins can be used for inhibiting angiogenesis.
CC The antibodies can also be used diagnostically to quantitatively detect
CC VEGF-B. Primers complementary to the coding sequences for the proteins
CC of the invention can also be used to detect VEGF-B coding sequences.
CC Quantification of VEGF-B in cancer biopsy specimens may be useful as an
                                                                                                                                                                                                            Query Match
Best Local
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01-MAR-1995;
06-JUN-1995;
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                                                                                                                                                                                                                                                                                                            retarded using antisense sequences direct against the VEGF coding sequences, this is especially useful in retarding VEGF expression tumour cells.
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DB; AAT37914.
qcecrpkkkesavkpd 136
                                QCECRPKKKDSAVKPD 136
                                                                               MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS 120
                                                                                                                           {\tt mspllrrlllvallqlartqapvsqfdgpshqkkvvpwidvyaratcqprevvvplsmel}
                                                              \verb|mgnvvkqlvpscvtvqrcggccpddglecvptgqhqvrmqilmiqypssqlgemslee hs|
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95US-0397651.
95US-0469427.
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Pred. No. 8.5e
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Key
Region
                                                                                Human vascular endothelial growth factor; hVEGF3; angiogenesis; tumour; inflammation; rheumatoid arthritis; diabetic retinopath psoriasis; bone; periodontium; ligament; antagonist.
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Location/Qualifiers 69..82
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Pred. No. 8.5e-60;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY94802;
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                                                                                                                                                                                                                                                                                                                                                  Vascular endothelial growth factor 3; VEGF-3; vascular expression; lymphatic; bone marrow; colon; heart; kidney; ovary; cancer; wound
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10-AUG-1999;
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                                                                                                                                                                                                                                       Homo sapiens.
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                                                                                                                                                                                                                                                                                                                 bone marrow;
disease; HIV
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100.0%;
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                                                                                                                                                                                                                                                                                                                 colon; heart; inflammation;
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Pred. No.
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. 9.2e-60;
                                                                                                                                                                                                                                                                                                                                                       ovary; cancer; wounds;
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Best Local S
Matches 119
01-MAR-1996;
01-MAR-1995;
06-JUN-1995;
06-DEC-1995;
                                                                          01-MAR-1996;
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                                                                                                                                                                                         Vascular endothelial growth factor; VEGF; proliferation; mouse; endothelial cell; anglogenesis: tissue growth factor.
                                                                                                                                                                                                                                     Murine vascular endothelial
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                                                                                                                                                                                                                                                                                                AAW80494;
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96US-0609443.
95US-0397651.
95US-0469427.
95US-0569063.
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100.0%; Pr
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RESULT 1
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ID AAW86205
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                     VEGF; VRP; vascular endothelial growth factor; VEGF-related recombinant; truncated; gene therapy; angiogenesis; cardiac coronary; collateral vessel development; cell growth; migrat lower limb ischaemia; stroke; peripheral vascular disease; i wound healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents murine vascular endothelial growth face (VEGF)-B186. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as anglogenesis is required by tumours as they need new blood supplies to grow and proliferate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                                                  WO9849300-A2
                                                                                                                                                                                                                                            Human
                                                                                                                              Homo
                                                                                                                                                                                                                                                                        16-FEB-1999
                                                                                                                                                                                                                                                                                                                             AAW86205 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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DB; AAV63568.
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                                                                                                                                                                                                                                           vascular endothelial growth factor (VEGF)-3 sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Fig 13; 52pp; English.
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88.2%;
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Pred.
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L.8e-59;
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                                                                                                                                                                                      migration;
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25-APR-1997;

97US-0842984

20-APR-1998;

98WO-US07801

05-NOV-1998

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RESULT 1
Matches
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Best Local
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                 22-DEC-1995;
02-MAR-1995;
20-NOV-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New truncated vascular endothelial growth factor-related pr
subunits - lack part of the N-terminal sequence, used to st
angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                  Key
                                                                                                                                                     Mus
                                                                                                                                                                      astroglial proliferation.
                                                                                                                                                                                                   Murine VRF167
                                                                                                                                                                                                                      30-NOV-1996
                                                                                                                                                                                                                                                           AAW00864 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 1; 113pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-009426/01
(AMRA-) AMRAD
                                                        22-FEB-1996;
                                                                           06-SEP-1996
                                                                                            WO9627007-A1
                                                                                                                       Peptide
                                                                                                                                                                               VRF; vascular endothelial growth
                                                                                                                                                                                                                                         AAW00864;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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                                                                                                                                                     musculus
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                                                                                                                                                                                                                                                                                                                  CGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD
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18; Conservative
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OPERATIONS PTY LTD
                 95AU-0007274.
95AU-0001457.
95AU-0006647.
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                                                       96WO-AU00094
                                                                                                                                Location/Qualifiers
                                                                                                              /label= Sig_peptide
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99.2%;
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Pred. No. 6.4e-59;
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                                                                                                                                                                                factor;
                                                                                                                                                                               VEGF;
                                                                                                                                                                                SOM175;
                                                                                                                                                                                                                                                                                                                                                                                                      Length 221;
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stimulate
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AAW00863
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Query Match
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                                         22-DEC-1995;
02-MAR-1995;
20-NOV-1995;
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                                                                                                                                                                                                                                                                                                                                                                                        \ensuremath{\mathsf{VRF}}\xspace , vascular endothelial growth factor; \ensuremath{\mathsf{VEGF}}\xspace , astroglial proliferation.
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N-PSDB; AAT13810.
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(AMRA-) AMRAD OPERATIONS PTY LTD
                                                                                                                              22-FEB-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        188 AA;
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95AU-0001457.
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87.5%;
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Pred. No. 8.5e-59;
6; Mismatches 11
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01-MAR-1995;
06-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VRF186 (AAW00863) is the murine homologue of human vascular endotongrowth factor-like polypeptide SOM175 (AAW00725), a protein capable inducing astroglial proliferation and of promoting neural survival and/or proliferation. Its amino acid sequence was deduced from a cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) solated from a new-born mouse brain cDNA clone (AAT13809) solated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) solated from a new-born mouse brain cDNA clone (AAT13809) solated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) solated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA clone (AAT13809) isolated from a new-born mouse brain clone (AAT13809) isolated from a new-born mouse brain clone (AAT13809) isolated from a new-born mouse brain clone (AAT13809) isolated from a new-born mouse brain clone (AAT13809) isolated from a new-born mouse brain clone (AAT13809) isolated from a n
Alitalo K,
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                                                                                                                                                                                                                                                                                                                                                  Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                vascular permeability factor; cell mitogen; angiogenesis; cell growth;
embryonic development; wound healing; tissue reorganisation; antibody;
                                                                                                                                                                                                                                                          06-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Endothelial cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Heart vascular endothelial growth factor-B174.
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DB; AAT13809.
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                                        LUDWIG INST CANCER RES. UNIV HELSINKI LICENSING
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Eriksson U,
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                                                                                                             95US-0569063.
95US-0397651.
95US-0469427.
                                                                                                                                                                                                          96WO-US02957
                                                                                                                                                                                                                                                                                                                                                                                                                                   proliferation; vascular endothelial growth factor; VPF; mesodermal cell; cationic dimer; tissue regeneration; lity factor; cell mitogen; angiogenesis; cell growth;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein;
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87.5%;
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Olofsson B,
                                                                                                                                                                                                                                                                                                                                                                                               tumour cell; mouse.
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Pred. No. 9.5e-59;
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a protein capable of
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CC diverse effects, depending on the specific biological context in which Ct it is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of angiogenesis in vivo by promoting CC endothelial cell growth during normal embryonic development, wound Ct healing, and tissue regeneration/reorganisation. The VEGF proteins of Ct the invention share the angiogenic and other properties of VEGF. With a rectain the angiogenic and other properties of VEGF. The proteins CC can therefore be used to accelerate angiogenesis in wound healing. CC antibodies against the proteins can be used for inhibiting angiogenesis. CC The antibodies can also be used diagnostically to quantitatively detect CC VEGF-B. Primers complementary to the coding sequences for the proteins CC of the invention of VEGF-B in cancer biopsy specimens may be useful as an indicator of metastatic risk. VEGF-B expression in a cell can be complementary to the coding sequences as an indicator of metastatic risk. VEGF-B expression in a cell can be complementary to the coding sequences as an indicator of metastatic risk. VEGF-B expression in a cell can be complementary to the coding sequences.
                   Query Match
Best Local :
  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         accelerate angiogenesis in wound healing, and antibodies for cancer diagnosis
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N-PSDB; AAT37911.
                                                                                                       Sequence ·
                                                                                                                                                                     sequences,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   proteins of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 18; Page 56-57; 107pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vascular endothelial growth factor VEGF-B proteins - useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW04824-W04831
                   Similarity
                                                                                                                                                                     this is especially useful in retarding
                                                                                                         195
  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           represent the vascular endothelial growth factor () invention, which promote endothelial or mesodermal VEGF is also a glycosylated cationic dimer, and is
                   87.7%;
5.
                   Score 630.5;
Pred. No. 2.
  Mismatches
                   .1e-58;
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                                       DB 17;
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        01-MAR-1996;
                        24-NOV-1998.
                                                                                 Vascular endothelial growth
                                                                                                 Murine
                                                                                                                 29-JAN-1999
                                                                                                                                  AAW80491
                                                                                                                                                   AAW80491 standard; Protein; 195
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                                                                                                                                                                                                                                                                   1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL 60
                                                                                                                                                                                           msleehsqcecrpkkkesavkpd
                                                                                                                                                                                                           MSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                          MGTVAKOLVPSCVTVQRCGGCCPDDGLECVPTGQfQVVM------QILMIRYPSSQLGE 113
                                                                                                                                                                                                                                                         mspllrrlllvallqlartqapvsqfdgpshqkkvvpwldvyaratcqprevvvplsmel
                                                                                                 vascular
                                                                                                                  (first entry)
        96US-0609443
                                                                                                 endothelial
                                                                       angiogenesis;
                                                                                 factor; VEGF; proliferation; mouse;
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                                                                        tissue growth;
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                                                                                                 factor
                                                                                                 (VEGF)-B174.
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RESULT 16
AAE09217
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Best Local S
Matches 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (VEGR)-B174. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating anglogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as anglogenesis is required by tumours as they need new blood expectables.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-1995;
01-MAR-1995;
06-JUN-1995;
06-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
Cleavage-site
                        Region
                                                  Peptide
                                                                                        Homo sapiens.
                                                                                                                  rheumatoid
                                                                                                                             Protein purification; affinity chromatography; angiogenesis; vascular endothelial growth factor; autotransplantation; tumour;
                                                                                                                                                                   Hexa-His-tagged human
                                                                                                                                                                                              19-NOV-2001
                                                                                                                                                                                                                        AAE09217;
                                                                                                                                                                                                                                                  AAE09217 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence represents murine vascular endothelial growth (VEGF)-B174. VEGF proteins are used for promoting proliferation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1;
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                                                                                                                  arthritis;
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                        /label-
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                                                              Location/Qualifiers
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84.6%;
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                                                                                                                  diabetic
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                                    Leader_sequence
            Hexa-His_tag
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Pred. No. 2.1e-58;
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                                                                                                               human; VEGF-B167
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Best Local Sin
Matches 116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a method for purifying a polypeptide comprising subjecting a biological sample to chromatography with an affinity matrix for an N- or C-terminal region of the polypeptide, that permits binding of full length molecule and not the truncated form. The method is useful for purifying human vascular endothelial growth factor (VEGF) especially VEGF-B isoforms e.g. VEGF-B167, VEGF-B186 and VEGF-B10-108. VEGF is involved in normal angiogenesis including formation of the corpus luteum, placental development, regulation of vascular permeability, inflammatory angiogenesis, autotransplantation and human diseases such as tumour promoting angiogenesis, rheumatoid arthritis and diabetes related retinopathy. The VEGF molecules are useful in therapeutic protocols and diagnostic assays. The present sequence is hexa-histidine-tagged human VEGF-B167 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Purifying a protein or polypeptide, e.g. vascular endothelial growth factor (VEGF)-B isoform, comprises subjecting a biological sample to affinity chromatography to allow the full length to bind and not the
                                                                                                                                                        Growth
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                                                                           Homo sapiens.
                                                                                                                               Growth factor; pharmaceutical.
                                                                                                                                                                                                          Human growth
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                                                                                                                                                           human;
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                                                                                                                                                                                                                                                                                                                                                                         Protein;
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                                                                                                                                                        cysteine knot; cellular
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Best Local S
Matches 115
08-MAR-1999;
02-JUN-1999;
23-JUN-1999;
07-JUL-1999;
26-JUL-1999;
                                                                                                                                                                                                                                                                                                                               Human; tumour; diagnosis; neoplastic disease; neoplastic cell graproliferation; tumourigenesis; identification; cancer; cytostatino nootropic; neuroprotective; antiinflammatory; immunosuppressive; immunostimulant; antiangiogenic; leukaemia; lymphoid malignancy; neuronal disorder; glial disorder; astrocytal disorder; anglogen hypothalamic disorder; glandular disorder; macrophagal disorder; phastocoelic disorder; inflammatory disorder; immunologic disorder.
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                                                                                                                                              06-JAN-2000;
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99WO-US05028.
99WO-US12252.
99US-0141037.
99US-0143048.
99US-0145698.
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8.3e-58;
hes 0;
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; cancer; cytostatic;
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.7%,
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those characterised by overexpression and/or activation of the amplified pRO genes. Exemplary conditions or disorders to be treated with such antibodies and other compounds include benign or malignant tumours (e.g., renal, liver, kidney, bladder, breast, gastric, ovarian, colorectal, prostate, pancreatic, lung, vulva, thyroid, hepatic carcinomas, sarcomas, glioblastomas, and various head and neck tumours), leukaemias and lymphoid malignancies, other disorders such as neuronal, glial, astrocytal, hypothalamic and other glandular, macrophagal, epithelial, stromal and blastocoelic disorders, and inflammatory, angiogenic and immunologic disorders. AAC58242 to AAC58366 represent PCR primers and hybridisation probes used in the isolation of the human PRO sequences. AAC58367 to AAC58396 and AAB24057 to AAB24089 represent human PRO polynucleotide and protein sequences given in the exemplification of the necessary invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-NOV-1999;
20-DEC-1999;
05-JAN-2000;
                                                                                                                                                                                                                                                                                                                    growth. The PRO polypeptides and nucleotides are useful in the treatment, diagnosis and prevention of cancer. The antibodies and other anti-tumour compounds maybe used to treat various conditions, including
                                                                                                                                                                                                                                                                                                                                                                          The present invention describes an isolated antibody that binds to one of the human PRO proteins designated PRO212, PRO290, PRO341, PRO531 PRO619, PRO717, PRO809, PRO830, PRO848, PRO943, PRO1005, PRO1009, PRO809, PRO8107, PRO1111, PRO1153, PRO1182, PRO1184, PRO1025, PRO1097, PRO1107, PRO11111, PRO1153, PRO1182, PRO1187, PRO1187, PRO1281, PRO33, PRO39, PRO834, PRO1317, PRO1710, PRO2094, PRO2145 OR PRO2198. PRO antagonists can be used to inhibit tumour cell
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Sequence
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                                       present
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  167
                                         invention.
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99WO-US30911.
2000WO-US00219.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     50; 286pp; English.
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Best Local :
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                                                               22 PVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGC
                                                                                                                Local Similarity
61 cpddglecvptgqhqvrmqilmirypssqlgemsleehsqcecrpkkkdsavkpd
               CPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD
                                                  pvsqpdapghqrkvvswidvytratcqprevvvpltvelmgtvakqlvpscvtvqrcggc
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llarity 100.0%;
Conservative (
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Pred. No.
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                                                                                                                          Length 167;
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RESULT 1
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RESULT :
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                                                                                                                                                                                   Human; vaccination; gene therapy; nutritional supplement; stem cell proliferation; haematopoiesis; nerve tissue regeneration; immune suppression; immune stimulation; anti-inflammatory; leukaem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This invention describes the novel preparation of biologically active dimers of recombinant human growth factors of the cysteine knot family starting from cellular inclusion bodies. Such dimers are are useful in pharmaceutical compositions and the method provides yields of 31-39.7%, in examples, compared with about 10% for the conventional method (see Biochemistry, 28 (1989) 2956). AAY08278-Y08301 are human growth factor
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                            Tang YT,
                                                                     18-APR-2000;
26-JAN-2001;
                                                                                                    16-APR-2001; 2001WO-US08656
                                                                                                                         25-OCT-2001
                                                                                                                                             WO200179449-A2
                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                              Novel human secreted protein #268.
                                                                                                                                                                                                                                                   18-DEC-2001
                                                                                                                                                                                                                                                                                             AAU29777 standard; Protein; 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein fragments used in the method of the invention.
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                                                  HYSEQ
                             Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     active growth
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  186 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kaerst U,
                                                                     2000US-0552929
2001US-0770160
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Pred. No. 9.5e-58;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity Matches 117; Conserv
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to novel human secreted polypeptides. The polypeptides and antibodies to the polypeptides are useful for determining the presence of or predisposition to a disease associated with altered levels of polypeptide. The polypeptides are also useful for identifying agents (agonists and antagonists) that bind to them. Cells expressing the proteins are useful for identifying a therapeutic agent for use in treatment of a pathology related to aberrant expression or physiological interactions of the polypeptide. Vectors comprising the nucleic acids encoding the polypeptides and cells genetically engineered to express them are also useful for producing the proteins. The proteins are useful in genetic vaccination, testing and therapy, and can be used as nutritional supplements. They may be used the none carrilage, tendents and/or nerve tissue growth or reconstration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acids encoding a range of human polypeptides, useful in genetic vaccination, testing and therapy \mbox{-}
                                                                                                                                            05-NOV-1998
                                                                                                                                                                                                                                                       VEGF; VRP; vascular endothelial growth factor; VEGF-related prote recombinant; truncated; gene therapy; angiogenesis; cardiac ische coronary; collateral vessel development; cell growth; migration; lower limb ischaemia; stroke; peripheral vascular disease; intest
                                                                                                                                                                                                                                                                                                                                       Human
                                                                                                                                                                                                                                                                                                                                                                       16-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                     AAW86236;
                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW86236 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bone, cartilage, tendon and/or nerve tissue growth or regeneration; immune suppression and/or stimulation; as anti-inflammatory agents; in treatment of leukaemias, AAUZ9510-AAU33304 represent the amino ac sequences of novel human secreted proteins of the invention.
                                                                                                            20-APR-1998;
                                                                                                                                                                            WO9849300-A2
                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                        wound
                                             (COLL-) COLLATERAL THERAPEUTICS
                                                                            25-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       566
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              {\tt tvqrcggccpddglecvptgqhqvrmqvlgtwgngqgmqilmirypssqlgemsleehsq}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TVQRCGGCCPDDGLECVPTGQHQVR------MQILMIRYPSSQLGEMSLEEHSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ipipttqapvsqpdapghqrkvvswidvytratcqprevvvpltvelmgtvakqlvpscv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cecrpkkkdsavkpd 580
                                                                                                                                                                                                                                                                                                                                  VEGF-3 full length sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20; Page 193; 765pp; English.
                                                                                                                                                                                                                                      healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           795
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                                                                                                                                                                                                                                                                                                                                                                     (first entry)
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                                                                              97US-0842984.
                                                                                                            98WO-US07801
                                                                                                                                                                                                                                                                                                                                                                                                                                     protein;
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86.7%;
                                                                                                                                                                                                                                      vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 618; DB
Pred. No. 2.3e
2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          618; DB 22;
No. 2.3e-56;
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                                                                                                                                                                                                                                                                                                    protein;
                                                                                                                                                                                                                                                                                        ischaemia;
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Best Local
                                                                                                                                                           06-DEC-1995;
01-MAR-1995;
06-JUN-1995;
                                                                             (LUDW-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Endothelial cell; proliferation; vascular endothelial growth factor; VPF; VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        optionally expressed from gene therapy vectors, have in vitro and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86234 to AAW86239 represent full length VRP sequences from which the truncated fragments are created.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therany vectors bear.
                           Alitalo K,
                                                                                                                                                                                                                                                                     01-MAR-1996;
                                                                                                                                                                                                                                                                                                                          06-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer;
                                                                                                                                                                                                                                                                                                                                                                               W09626736-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vascular endothelial growth factor-B112.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW04828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW04828 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 5; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               anglogenesis, e.g. for
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   82
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               114;
                                                                             LUDWIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      metastatic risk;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            201
                           Eriksson
                                                                           HELSINKI LICENSING LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2C; 113pp; English.
                                                                                                                                                           95US-0569063.
95US-0397651.
95US-0469427.
                                                                                                         INST CANCER RES.
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99.1%;
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                         Olofsson B,
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Pred. No. 7.2e-57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
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                                                                             ٥<u>٢</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mouse.
                      Pajusola
                         ζ.
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Best Local Similarity
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01-MAR-1996;
              01-MAR-1996;
                           24-NOV-1998
                                          US5840693-A
                                                                      endothelial
                                                                          Vascular endothelial growth factor; VEGF; proliferation;
                                                                                          Murine vascular endothelial growth factor (VEGF)-B112
                                                                                                                        AAW80492
                                                                                                         29-JAN-1999
                                                                                                                                     AAW80492 standard; Protein;
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                                                                      cell;
                                                                                                                                                                                                                                                            Conservative
                                                                                                        (first entry)
96US-0609443
             96US-0609443
                                                                      angiogenesis;
                                                                                                                                                                                                                                                                   85.1%;
89.1%;
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                                                                                                                                                                                                                                                            Score 612; DB 17;
Pred. No. 1.2e-56;
4; Mismatches 10
                                                                    tissue
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                                                                     growth;
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RRESULT 2
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06-JUN-1995;
06-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (VEGF)-B112. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours \frac{1}{2}
                                                                                                                                                                                                            VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemi coronary; collateral vessel development; cell growth; migration; head lower limb ischaemia; stroke; peripheral vascular disease; intestine wound healing; skin; vascular permeability; VRF.
                                                                                                                                                                                                                                                                                                                                                                                   Human
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  20-APR-1998;
                                                        05-NOV-1998
                                                                                                           W09849300-A2
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95US-0569063.
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89.1%;
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Pred. No. 1.2e-56;
4; Mismatches 10
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                                                                                                                                                                                                                                                                                                    ischaemia
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20-APR-1998;

25-APR-1997;

97US-0842984 98WO-US07801 WO9849300-A2 Homo sapiens

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RESULT 2
AAW86218
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                                                                                                                                                                                                                                                                                                                                                                                         Human VEGF-3
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                                                                                                                                                                                                                                                     wound
                                                                                                                                                                                                                                                                                                coronary;
                                                                                                                                                                                                                                                                                                                                                                                                                                      16-FEB-1999
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                                                                                                                                                                                                                                                                                                                     recombinant;
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                                                                                                                                                                                                                                           VRP; vascular endothelial growth factor; VEGF-related prote binant; truncated; gene therapy; angiogenesis; cardiac ische lary; collateral vessel development; cell growth; migration; limb ischaemia; stroke; peripheral vascular disease; intest healing; skin; vascular permeability.
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                                                                                                                                                                                                                                                                                                                                                                                         truncated fragment 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
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                                                                                                                                                                                                                                                                                                                   protein;
ischaemia;
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RESULT 26
AAW862
ID AAW862
XX AAW862
XX AAW862
XX I6-FEB
XX VEGF;
KW VEGF;
KW COFONA
KW COFONA
KW COFONA
KW COFONA
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XX WOUND
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XX WOOS849
PN WOS849
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 107
                                                                                                                                                                                                                                       recombinant; truncated; gene therapy; anglogenesis; cardiac ischaemis coronary; collateral vessel development; cell growth; migration; heat lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; VEGF-related factor; VRF; vascular permeability
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                                                                     25-APR-1997;
                                                                                                     20-APR-1998;
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                                   (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW86214 standard; protein;
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107; Conserv
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Pred. No. 5.4e-53;
0; Mismatches 1
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The invention relates to truncated VRP (vascular endothelial growth CC factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, or optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischemia; to stimulate endothelial cell growth and migration in vitro; to treat heart ischaemia (e.g.cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeabblity. Sequences AAW86214 to AAW86217 represent truncated fragments of VRF-2 (VEGF- related factor).
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New truncated vascular endothelial growth factor-related subunits - lack part of the N-terminal sequence, used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1999-009426/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Fig 2B; 113pp; English.
178 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein
stimulate
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Query Match
Best Local
                                                                                                   Matches
61 cvptgqhqvrmqilmirypssqlgemsleehsqcecrp-kkdsavkpd
                        89 CVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                            29 PGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLE
                                                 ₩.
                                                pghqrkvvswidvytratcqprevvvpltvelmgtvakqlvpscvtvqrcggccpddgle
                                                                                                   107;
                                                                                                               Similarity
                                                                                                   Conservative
                                                                                                              79.5%;
99.1%;
                                                                                                  0;
                                                                                                               Pred.
                                                                                                                          Score 571.5;
                                                                                                  Mismatches
                                                                                                               No.
                                                                                                              .5; DB
3e-52;
                                                                                                 0;
                                                                                                                           20;
                                                                                                  Indels
                                                                                                                           Length
                                                                                                 ۳
                                                                                                 Gaps
                                                                         88
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Q

В δÃ В

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AAW86234
                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                   recombinant; truncated; gene therapy; angiogenesis; cardiac ische coronary; collateral vessel development; cell growth; migration; lower limb ischaemia; stroke; peripheral vascular disease; intest wound healing; skin; vascular permeability.
                                                                                       20-APR-1998;
                                                                                                          05-NOV-1998
                                                                                                                              WO9849300-A2
                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                             VEGF;
                                                                                                                                                                                                                              Human VEGF-B full length sequence.
                                                                                                                                                                                                                                                    16-FEB-1999
                                                                                                                                                                                                                                                                                         AAW86234 standard; protein;
                                                (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                                                                                                                                                              27
                                                                                                                                                                                                            VRP; vascular endothelial growth factor; VEGF-related
                                                                    97US-0842984.
                                                                                       98WO-US07801.
                                                                                                                                                                                                                                                                                          167
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protein;
ischaemia;

WPI; 1999-009426/01

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RESULT :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid W-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits are used in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAN86234 to AAN86239 represent full length VRP recurrences from which the truncated fragments are created.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimula angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                   VEGF; VRP; vascular endothelial growth factor; VEGF-related prote recombinant; truncated; gene therapy; anglogenesis; cardiac ische coronary; collateral vessel development; cell growth; migration; lower limb ischaemia; stroke; peripheral vascular disease; intest wound healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 5; Fig
New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate anglogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW86208 standard; protein; 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                    Bohlen
                                                                                                                                      (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                      25-APR-1997;
                                                                                                                                                                                                       20-APR-1998;
                                                                                                                                                                                                                                         05-NOV-1998
                                                                                                                                                                                                                                                                         WO9849300-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW86208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sequences from which the truncated fragments are created.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                    1999-009426/01
                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cpddglecvptgqhqvrmqilmiqypssqlgemsleehsqcecrpkkkesavkpd 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         104;
                                                                                                                                                                                                                                                                                                                                                                                                                                             VEGF-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2A; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                           truncated fragment 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ą,
                                                                                                                                                                       97US-0842984
                                                                                                                                                                                                       98WO-US07801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      79.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 571; DB 20;
Pred. No. 3.1e-52;
Prematches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΑA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 167;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         stimulate
                                                                                                                                                                                                                                                                                                                                                                                                          protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                          ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW86219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
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Best Local S
Matches 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits are used in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart lisease; to treat ischaemia (e.g.cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated
                                                                                                                                                                                                                                                                                                                                             VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia; coronary; collateral vessel development; cell growth; migratioh; heart lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; vascular permeability.
                                         anglogenesis, e.g. fo
                                                        New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate
              Claim
                                                                                                     WPI; 1999-009426/01.
                                                                                                                                                                                               25-APR-1997;
                                                                                                                                                                                                                           20-APR-1998;
                                                                                                                                                                                                                                                         05-NOV-1998
                                                                                                                                                                                                                                                                                    W09849300-A2
                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                           Human VEGF-3 truncated fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW86219;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW86219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fragments of VEGF-B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim
                                                                                                                                                               (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 pshqkkvvpwidvytratcqprevvvplsmelmgnvvkqlvpscvtvqrcggccpddgle 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CVPTGOHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cvptgqhqvrmqilmiqypssqlgemsleehsqcecrpkkkesavkpd
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              5.
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            Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              160 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
              2C;
                                                                                                                                                                                               97US-0842984.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        113pp; English
                                            for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76.4%;
91.7%;
                                         treating heart disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 549; DB 20;
Pred. No. 6.1e-50;
5; Mismatches 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20;
                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                             heart;
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RESULT 30
AAW86215
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia coronary; collateral vessel development; cell growth; migration; hear lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; VEGF-related factor; VRF; vascular permeability.
The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host
                                                                            Claim 5; Fig 2B; 113pp; English.
                                                                                                                New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate anglogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                               05-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9849300-A2
                                                                                                                                                                                                 WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                                                    25-APR-1997;
                                                                                                                                                                                                                                                                                                                                                      20-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human VRF-2 truncated fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW86215;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW86215 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                            (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ragments of VEGF-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             34 KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCDDDGLECVPTG 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qhqvrmqilmirypssqlgemsleehsqcecrpkkkdsavkqd 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       {\tt kvvswidvytratcqprevvvpltvelmgtvakqlvpscvtvqrcggccpddglecvptg}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      189
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                  97US-0842984
                                                                                                                                                                                                                                                                                                                                                      98WO-US07801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein; 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      76.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 548; DB Pred. No. 9.5e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  intestine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    heart;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
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RESULT 3
Qy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                     22-DEC-1995;
02-MAR-1995;
20-NOV-1995;
                                                                                                                                      Grimmond Weber G;
                                                                                                                                                                                                                                                                                                                                            Key
Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAWB6214 to AAWB6217 represent truncated fragments of VRF-2 (VEGF- related factor).
                      Claim 14; Page 48; 113pp; English.
                                                            New growth useful for
                                                                                                                                                                                                                                                                                06-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                           astroglial proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                        Vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW00728 standard; Protein; 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                   N-PSDB; AAT33613.
                                                                                                             WPI; 1996-412774/41
                                                                                                                                                                            (AMRA-) AMRAD
                                                                                                                                                                                                                                                       22-FEB-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qhqvrmqilmirypssqlgemsleehsqcecrp-kkdsavkpd
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          173
                                                           factor related to vascular endothelial growth factor inducing astroglial proliferation and promoting neuro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                    Hayward NK,
                                                                                                                                                                             OPERATIONS
                                                                                                                                                                                                     95AU-0007274.
95AU-0001457.
95AU-0006647.
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                                                                                                                                                                                                                                                      96WO-AU00094
                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                 /label= Sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      75.2%;
                                                                                                                                                                            PTY LTD
                                                                                                                                                     Larsson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                          factor; VEGF; SOM175-e4; neuron
                                                                                                                                                                                                                                                                                                                                                                                                                                                factor-like protein SOM175-e4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 540.5;
Pred. No. 5.
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                                                                                                                                                     'n
                                                                                                                                                     Nordenskjold
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                                                              neuronal
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Splice variants (AAW00726-28) of the

human vascular endothelial growth

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factor (VEGF) related protein) subunits that have at least one amino factor (VEGF) related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VFF subunits are used to produce truncated proteins recombinantly. The truncated VFF subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to
                                                                                                                                                The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VEGF; VRP; vascular endothelial growth factor; VEGF-related prote recombinant; truncated; gene therapy; anglogenesis; cardiac ischa coronary; collateral vessel development; cell growth; migration; lower limb ischaemia; stroke; peripheral vascular disease; intest wound healing; skin; vascular permeability.
                                                                                                                                                                                                                   New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate anglogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                Bohlen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-NOV-1998
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                                                                                                                                                                                   Claim 5; Fig
                                                                                                                                                                                                                                                                                              WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9849300-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                    (COLL-) COLLATERAL THERAPEUTICS.
                                                                                                                                                                                                                                                                                                                                                                                                       25-APR-1997;
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                                                                                                                                                  invention relates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999-009426/01
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard; protein; 155
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                  2A; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA;
                                                                                                                                                                                                                                                                                                                                                                                                       97US-0842984
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73.6%;
                                                                                                                                                to truncated VRP (vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 529; DB
;; Pred. No. 4.5
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2.
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hes 0;
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ischaemia;
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        The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, or produce optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia; coronary; collateral vessel development; cell growth; migration; heart; lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g.cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated fragments of VEGF-B.
                                                                                                                                                                                                                                                     New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimula
                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                      angiogenesis,
                                                                                                                                                                                                                                                                                                     WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                                                                                                                                    25-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    l Similarity
96; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    155 AA;
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                                                                                                                                                                                                      2C; 113pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73.3%;
                                                                                                                                                                                                                                    treating heart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          184
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Pred. No. 1.2e
4; Mismatches
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L.2e-47;
hes 3;
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hearing permeability.
                       The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, particularly optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart lisease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia coronary; collateral vessel development; cell growth; migration; hearlower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-009426/01.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW86210 standard; protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IDVYTRATCOPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVR 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                5; Fig 2A; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VEGF-B truncated fragment 3.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97US-0842984
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99.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 152 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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ischaemia;
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Sequence

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AAW86216
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Matches
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                                       The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, particularly optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g.cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAM86214 to AAW86217 represent truncated
                                                                                                                                                                                                                                                                                                                 New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VEGF; VRP; vascular endothelial growth factor; VEGF-related prote recombinant; truncated; gene therapy; angiogenesis; cardiac ische coronary; collateral vessel development; cell growth; migration; lower limb ischaemia; stroke; peripheral vascular disease; intest
                            permeability. Seque fragments of VRF-2
                                                                                                                                                                                                                                                                                     Claim 5;
                                                                                                                                                                                                                                                                                                                angiogenesis, e.g. for treating
                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-009426/01.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity 93.9
93; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         152
                                                                                                                                                                                                                                                                                     2B;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      skin; VEGF-related factor; VRF; vascular permeability.
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                                                                                                                                                                                                                                                                                    113pp;
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Pred. No. 2.2e-46;
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                               factor).
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                                                                                                       factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g.cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated
                                                                                                                                                                                                                                                                                                The invention relates to truncated VRP (vascular endothelial factor (VEGF)-related protein) subunits that have at least on
                                                                                                                                                                                                                                                                                                                                                 Claim
                                                                                                                                                                                                                                                                                                                                                                         New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate anglogenesis, e.g. for treating heart disease and ischaemia
                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VRP; vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VEGF-B truncated fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             limb ischaemia; stroke;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ", vascular endothelial growth factor; VEGF-related protein; int; truncated; gene therapy; anglogenesis; cardiac ischaemia; collateral vessel development; cell growth; migration; heart b ischaemia; stroke; peripheral vascular disease; intestine;
                                                                                          ity. Sequences AAW86208 of VEGF-B.
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99.0%;
 70.1%;
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Pred.
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0; Mismatches 0
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504; DB 20;
No. 3.1e-45;
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44 RATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILM 103

Matches Query Match Best Local :

Local

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68.7**%**; 98.9**%**;

Score 494; DB 20; Pred. No. 4.3e-44; Mismatches

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                                        factor (VEGF) related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAWB6218 to AAWB6221 represent truncated
                                                                                                                                                                                                                                                                                                                      New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimula angiogenesis, e.g. for treating heart disease and ischaemia
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Sequence
                                                                                                                                                                                                                                                            The invention relates to truncated VRP (vascular endothelial growth
                                                                                                                                                                                                                                                                                           Claim 5;
                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-009426/01
                                                                                                                                                                                                                                                                                                                                                                                                                         Bohlen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        (COLL-) COLLATERAL THERAPEUTICS
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                               tragments
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VEGF-3 truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92;
                                 of VEGF-3.
 179
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                                                                                                                                                                                                                                                                                          2C; 113pp;
 A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97US-0842984
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  fragment
                                                                                                                                                                                                                                                                                           English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   179
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RESULT 38
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                                                               Matches
                                                                                                                                                                                                                                 factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g.cardiac, chronic coronary or chronic
                                                                                                                                                                                                                                                                                                                                                                                                                                                   New truncated vascular endothelial growth factor-related protein subunits - lack part of the N·terminal sequence, used to stimulate anglogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemicoronary; collateral vessel development; cell growth; migration; healower limb ischaemia; stroke; peripheral vascular disease; intestine wound healing; skin; vascular permeability.
                                                                                                                                           Sequence
                                                                                                                                                                        lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated fragments of VEGF-B.
                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to truncated VRP (vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                                                                                                        Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-009426/01
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              42 YTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                               Local
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                                                               Conservative
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93.7%;
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                                                             Pred. No. 8.9
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Pred. No. 8.
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                                                                                                                           AAW04824-W04831 represent the vascular endothelial growth factor (VEGF) CC proteins of the invention, which promote endothelial or mesodermal cell cc proliferation. VEGF is also a glycosylated cationic dimer, and is contextimes referred to as vascular permeability factor (VPF). VEGF has CC diverse effects, depending on the specific biological context in which cit is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of angiogenesis in vivo by promoting cc endothelial cell growth during normal embryonic development, wound chealing, and tissue regeneration/reorganisation. The VEGF proteins of the invention share the angiogenic and other properties of VEGF, but are clistributed and expressed in tissues differently to VEGF. The proteins can threfore be used to accelerate angiogenesis in wound healing.

CC Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can also be used diagnostically to quantitatively detect VEGF-B. Primers complementary to the coding sequences for the proteins of the invention can also be used to detect VEGF-B coding sequences.

CC quantification of VEGF-B in cancer biopsy specimens may be useful as an indication of the format attricing to the vector of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be useful as an indication of the cancer biopsy specimens may be usef
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01-MAR-1995;
06-JUN-1995;
Sequence
                                          retarded using antisense sequences direct against the VEGF coding sequences, this is especially useful in retarding vector and the vector coding tumour cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing, and antibodies for cancer diagnosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Endothelial cell; proliferation; vascular endothelial growth factor; VPF; VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody; cancer; metastatic risk; tumour cell; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 18; Page 53-54; 107pp; English.
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UNIV HELSINKI LICENSING LTD OY.
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95US-0397651.
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                         Best Local
                                        Query Match
Best Local
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01-MAR-1995;
06-JUN-1995;
06-DEC-1995;
                                                                                                                            The present sequence represents murine vascular endothelial growth fac (VEGF)-B. The nucleic acid sequence is translated in two different reading frames. The proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for tracting tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need the protein action of the proteins or as inhibitors of their action.
                                                                                                                                                                                                                                                                                                                      Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US5840693-A
                                                                                                                                                                                                                                                                                              Claim 1; Fig 1; 52pp; English.
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                                                                                          Sequence
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95US-0397651.
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                                                                                                                     and proliferate.
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'.3e-44;
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                                                  Length 102;
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RKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPT 92

В Ş

Н

ratcqprevvvpltvelmgtvakqlvpscvtvqrcggccpddglecvptgqhqvrmqilm 60 RATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILM 103 Best Local Matches 9 Query Match

| Similarity | 92; Conser

67.7%; nilarity 98.9%; Conservative

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Score 486.5; DB 20 Pred. No. 2.3e-43; 0; Mismatches 0;

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Indels Length 163;

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RESULT 41
AAW86217
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                           factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vitro and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular fragments of VRF-2 (VEGF- related factor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia; coronary; collateral vessel development; cell growth; migration; heart lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; VEGF-related factor; VRF; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                    New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate angiogenesis, e.g. for treating heart disease and ischaemia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW86217 standard; protein; 163
Sequence
                                                                                                                                                                                                                                                                                  The invention relates to truncated VRP (vascular endothelial growth
                                                                                                                                                                                                                                                                                                                     Claim
                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pvvpwidvyaratcqprevvvplsmelmgnvvkqlvpscvtvqrcggccpddglecvpt 61
                                                                                                                                                                                                                                                                                                                     5; Fig 2B; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VRF-2 truncated fragment 4.
163
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RESULT 42
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KW recomb
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                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, operationally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate anglogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                    permeability. Sequen
fragments of VEGF-B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bohlen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-NOV-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (COLL-) COLLATERAL THERAPEUTICS
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                                                               104
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         61
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                                                                                                                            _
                                                            IRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD
                                                                                                                                                    RATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILM
ratcqprevvvplsmelmgnvvkqlvpscvtvqrcggccpddglecvptgqhqvrmqilm
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VEGF-B truncated fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       healing;
                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                              145 AA;
                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    skin; vascular permeability.
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93.5%;
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                                                                                                                                                                                                                                                                        Score 478; DB 20; Pred. No. 1.6e-42;
                                                                                                                                                                                                                                         Mismatches
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IJ AAR22348 RESULT

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AAR22348 standard; Protein; 146

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This invention describes a novel polypeptide that is a parapox virus homolog of human vascular endothelial growth factor (PPV-VEGF) and stimulates endothelial cell proliferation. The products of the invention have angiogenic activity. The polypeptide can be used in pharmaceutical compositions for therapeutic or diagnostic use, e.g. for stimulating angiogenesis or tissue repair or for immunomodulation, e.g. by stimulating endothelial cell proliferation or inhibiting dendritic cell differentiation. Nucleic acids encoding the polypeptide can be used in pharmaceutical compositions for DNA vaccination or gene therapy. This sequence represents a protein fragment of a parapox virus D1701 vascular endothelial growth factor (VEGF) homologue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homolog of human vascular endothelial growth factor useful for stimulating endothelial cell proliferation, e.g. for stimulating anglogenesis or tissue repair or for immunomodulation \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 D1701; vascular endothelial growth factor; PPV-VEGF; angiogenesis; endothelial cell proliferation; gene therapy; diagnostic; tissue r immunomodulation; dendritic cell differentiation; DNA vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Fig 2; 16pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dehio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DE19813774-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Parapoxvirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Parapox virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY33440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY33440 standard; Protein;
132
                                                           127
                                                                                                                         72
                                                                                                                                                                                        83
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                                                                                                                                                                                                                                                                                                                     10
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                                                                                                                                                                                                                                                   kk 133
                                                       KK 128
                                                                                                                         fkpscvplmrcggccndeglecvpteefnitmqimrikphqgqhigemsflqhnkcecrp
                                                                                                                                                                                    LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
                                                                                                                                                                                                                                                                                                                 LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ç
                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Roettgen M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              190
                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VEGF growth factor homologue protein fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98DE-1013774.
                                                                                                                                                                                                                                                                                                                                                                                                                 37.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rziha H,
                                                                                                                                                                                                                                                                                                                                                                                   22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190
                                                                                                                                                                                                                                                                                                                                                                                Score 270.5; DB 2
Pred. No. 1.5e-20;
2; Mismatches 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Buettner M;
                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 20;
                                                                                                                                                                                                                                                                                                                                                                                   42;
                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 190;
                                                                                                                                                                                                                                                                                                                                                                                   Ψ
                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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                                                                                                                                                      Matches
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Best Local
                                                                                                                                                                                                                                                                                                       Multiple cDNAs encoding alternative forms of the VEGF A-subunit were amplified using PCR primers as in AAQ23049 and AAQ23050. Three sets of clones were identified. Clone #12 encoded the 164 amino acid secreted form of VEGF A-subunit (see AAR22347). Clone #14 has a 135 bp deletion and thus encodes a 120 amino acid form and Clone #16 has a deletion and thus encodes a 120 amino acid form and Clone #16 has a
                                                                                                                                                                                                                                                      72bp insertion and encodes a 188 amino acid mature protein (AAR22351). The deleted region lies between the second base of the Asn140 codon and the third base of the Arg184 codon. The 120 amino acid mature protein has Asn140 converted to Lys140.
                                                                                                                                                                                                                                                                                                                                                                                                              Vascular endothelial cell growth factor II - used as artificial blood vessels or to promote tissue repair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR22348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1992-098641/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bayne ML,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-SEP-1990;
21-SEP-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-SEP-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JUL-1992
                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                       Example
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EP476983-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Key
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                         127
 132
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                                                                                                lalllylhhakwsqaapttegeqkahevvkfmdvyqrsycrpietlvdifqeypdeieyi 71
                        KKKDSAVKPD 136
                                                             LVPSCYTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
                                                                                                                           LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
                                                fkpscvplmrcagccndealecvptsesnvtmqimrikphqsqhigemsflqhsrcecrp 131
kk--drtkpe 139
                                                                                                                                                  Similarity 43.8 57; Conservative
                                                                                                                                                                                                                                                                                                                                                                                       9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAQ23039.
                                                                                                                                                                                                                                           AAQ23038-Q23059.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cell; GS-9L; conditioned medium; heterodimer; VEGF-II; mitogenesis; vascular repair; blood vessel implant; chain reaction; alternative splicing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conn GL,
                                                                                                                                                                                                                                                                                                                                                                                    Page 14 and Fig 4; 38pp;
                                                                                                                                                                                                                    146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    form of VEGF mature A-subunit with 120 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                   AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90US-0586640.
90US-0586638.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91EP-0308489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /label-
27..146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label= VEGF_A-subunit
/note= "120 amino acids
                                                                                                                                                              37.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   signal
                                                                                                                                                     21;
                                                                                                                                                  Score 269.5; DB 13;
Pred. No. 1.4e-20;
21; Mismatches 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            X
                                                                                                                                                                                                                                                                                                                                                                                    English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              long"
                                                                                                                                                                            DB 13;
                                                                                                                                                     Indels
                                                                                                                                                                            Length 146;
                                                                                                                                                                                                                                                                                                                                                                                                                            coating
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                                                                                                                                                                                                                                                         The full length coding region of the A subunit or monomer of VEGF is determined from three sets of overlapping cDNA clones. Degenerate oligo. primers based on the amino acid sequences

Phe-Met-Asp-Val-Tyr-Gln from polypeptide L42 (residues 42-47) and Cys-Lys-Asn-Thr-Asp from polypeptide T38 (residues 164-168) were used to PCR amplify the central region of the cDNA for VEGF A chain.

A single band migrating at 420 bp was gel purified, digested with Sall, ligated into pGEM325(+) and sequenced. The nucleotide sequence obtained (p4238) was used to design antisense and sense PCR primers to amplify the 5 and 3 ends of the cDNA. These 5 and 3 clones are denoted p5-15 and pW3, respectively. In addition to the cDNA coding the 164 amino acid secreted form identified by protein sequencing, two alternatively spliced cDNAs encoding a 146 amino acid forms are cloned and sequenced.
                                                                                                                                                                 Matches
                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence of vascular endothelial cell growth factor VEGF 146\ \mathrm{amino}\ \mathrm{acid}\ \mathrm{residue}\ \mathrm{subunit}.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 4; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vascular endothelial cell growth factor sub-units - which stimulate vascular endothelial cell growth, used for inducing tissue repair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAQ28953.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-MAR-1991;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vascular development; vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-FEB-1993
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                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and growth.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1992-325745/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bayne
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EP506477-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR27354;
 132
                           127
                                                                                89
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                                                                                                            12
                                                                                                                                    10 LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
                                                  kk--drtkpe
                         KKKDSAVKPD
                                                                                                          lalllylhhakwsqaapttegeqkahevvkfmdvyqrsycrpietlvdifqeypdeieyi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MĽ,
                                                                                                                                                               l Similarity
57; Conserv
                                                                                                                                                                                                                                   146 AA;
                                                                                                                                                                 Conservative
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 139
                           136
                                                                                                                                                                            37.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mitogen;
                                                                                                                                                              Score 269.5; DB 13; Pred. No. 1.4e-20; 21; Mismatches 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            blood vessel;
ctor; neovascularisation
                                                                                                                                                                                         DB 13;
                                                                                                                        <u>:</u>
                                                                                                                                                                 Indels
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Job time: 3708 sec

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Result
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Maximum Match 99%
Listing first 45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
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             98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being primand is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
DB
                                                           123
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length:
length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR_71:*
1: pir1:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
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## ALIGNMENTS

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vascular endothelial growth factor-related factor 186 precursor - mouse N;Alternate names: VRF 186 protein, VEGF 186 C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Date: 10-May-1996 #sequence\_revision 19-Jul-1996 #text\_change 05-Nov-1999 C;Accession: JC4679 A;Molecule type: mRNA
A;Residues: 1-188 <TON>
A;Residues: 1-188 <TON>
A;Cross-references: GB:U43837; NID:g1314335; PIDN:AAC52553.1; PID:g1314336
C;Comment: This factor is a mitogen, that is selective for endothelial cells, and are noothelial growth factors 167 and VEGF 186. R:Townson, S.; Lagercrantz, J.; Grimmond, S.; Silins, Biochem. Biophys. Res. Commun. 220, 922-928, 1996 A;Title: Characterization of the murine VEGF-related A;Reference number: JC4679; MUID:96183052 A;Accession: JC4680 vascular endothelial growth factor-related factor 167 precursor - mouse N;Alternate names: VRF 167 protein C;Species: Mus musculus (house mouse) C;Date: 110-May-1996 #sequence\_revision 19-Jul-1996 #text\_change 05-Nov-1999 C;Accession: JC4680 R;Townson, S.; Lagercrantz, J.; Grimmond, S.; Silins, G.; Nordenskjoeld, M.; RESULT JC4679 RESULT JC4680 A;Map position: 19
A;Introns: 137/2
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-188/Product: vascular endothelial growth factor-related R;Townson, S.; Lagercrantz, J.; Grimmond, S.; Silins, G.; Norden: Biochem. Biophys. Res. Commun. 220, 922-928, 1996 A;Title: Characterization of the murine VEGF-related factor gene 밁 Ω 닭 δÃ 밁 Qy C;Genetics:
A;Gene: vrf Query Match Best Local : Matches 121; 121 121 61 61 Local Similarity Ľ 1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIQYPSSQLGEMSLEEHS MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS MSPLLRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL Conservative 89.6%; ú Score 644; Pred. No. 2. Mismatches DB 2; .2e-55; Silins, G.; Nordenskjoeld, M.; 10; Length 188; factor gene G.; Nordenskjoeld, M.; Indels factor #status 0; Gaps 120 60 60 predicted Weber, 0, be]

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RESULT
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A; Accession: JC4679
A; Molecule type: mRNA
A; Residues: 1-207 <TOW>
A; Cross-references: GB: U43836; NID: 91703480;
C; Comment: This factor is a mitogen, that is
lar endothelial growth factors 167 and 186.
                    glioma-derived vascular endothelial cell growth factor - C;Species: Rattus norvegicus (Norway rat) C;Date: 16-Nov-1990 #sequence_revision 16-Nov-1990 #text_C;Accession: A35987
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Blochim. Blophys. Acta 1260, 235-238, 1995
A:Title: Nucleotide sequence and expression of the porcine vascular endothelial growth A;Reference number: S52130; MUID:95143284
A;Accession: S52130
A;Status: preliminary
   R; Conn,
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A;Residues: 1-190 <SHA>
A;Cross-references: GB:X81380; NID:g587559;
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C;Species: Sus scrofa domestica (domestic pig)
C;Date: 14-7ul-1995 #sequence_revision 21-Jul-1995 #text_change
C;Accession: S52130
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C;Keywords: growth factor
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-207/Product: vascular endothelial growth factor related factor #status
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                                                                                                                                                                                                                                                                                                                                     LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QCECRPKKKDSAVKPD 136
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 Bayne, M.L.;
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 Soderman, D.D.;
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                                                                                                                                                                                                                                                                                                                                                                                                       37.6%; Score 270.5; DB 2; 45.1%; Pred. No. 4.7e-19;
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Pred. No. 2.4e-55;
5; Mismatches 10
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                                  16-Nov-1990 #text_change
 Kwok, P.W.;
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Sullivan,
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A; Molecule type: mRNA
A; Residues: 1-116, 'Er', 119-190 <CLA>
A; Residues: 1-116, 'Er', 119-190 <CLA>
A; Cross references: GB: M95200; NID: g202350; PIDN: AAA40547.1;
A; Note: sequence extracted from NCBI backbone (NCBIN: 110665,
A; Note: sequence extracted from NCBI backbone (NCBIN: 110665,
A; Rosenthal, R.A.; Megyesi, J.F.; Henzel, W.J.; Ferrara, N.;
Growth Factors 4, 53-59, 1990
A; Title: Conditioned medium from mouse sarcoma 180 cells cont
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A; Cross references: GB:538083; NID:9249858; PIDN:AAB22253.1;
A; Experimental source: embryo
A; Note: sequence extracted from NCBI backbone (NCBIN:107622,
R; Claffey, K.P.; Wilkison, W.O.; Spiegelman, B.M.
J. Biol. Chem. 267, 16317-16322, 1992
A; Title: Vascular endothelial growth factor. Regulation by ce
A; Reference number: A43351; MUID:92355593
A; Accession: A43351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Mus musculus (house mouse)
C;Date: 03-Feb-1994 #text_change
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change
C;Accession: B44881; A43351; A61029
R;Breier, G.; Albrecht, U.; Sterrer, S.; Risau, W.
Development 114, 521-532, 1992
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C; Keywords: alternative
                                                                                                                                                                                                                                                                                               A;Reference number: A61029; MUID:91197543
A;Accession: A61029
A:Molecula
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Title: Expression of vascular endothelial A;Reference number: A44881; MUID:92274860 A;Accession: B44881 A;Molecule type: mRNA
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A; Residues: 1-190 <CON>
A; Cross-references: GB:M32167; NID:g204287;
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A; Residues: 27-38 < ROS>
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LVPSCYTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
                                                         LALLLYLHHAKWSQAAPTTEGEQKSHEVIKFMDVYQRSYCRPIETLVDIFQEYPDEIEYI 71
                                                                                              LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ
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Pred. No. 9.
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No. 5.9
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, NCBIP:110675)
Folkman, J.
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FKPSCVPLMRCAGCCNDEALECVPTSESNITMQIMRIKPHQSQHIGEMSFLQHSRCECRP

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N;Contains: vascular enverse.
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: (3:Feb-1994 #sequence_revision (3-Feb-1994)
C;Accession: A44881; C44881; A60932; S52136
C;Accession: A44881; C44881; A60932; S52136
R;Breier, G; Albrecht, U; Sterrer, S.; Risau, W.
Perelopment 114, 521-532, 1992
vascular endothelial growth factor precursor (version 2) - bovine (;Species: Bos primigenius taurus (cattle) C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 05-Nov-1999 C;Accession: B40080; B33787; A33255 R;Leung, D.W.; Cachianes, G.; Kuang, W.J.; Goeddel, D.V.; Ferrara, N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: protein
A;Molecule type: protein
A;Residues: 27-46 <SUG>
C;Comment: Homodimers could be demonstrated for recombinant VEGF-2 but not VEGF-3.
C;Comment: Homodimers could be demonstrated for recombinant VEGF-2 but not VEGF-3.
C;Keywords: alternative splicing; angiogenesis; disulfide bond; glycoprotein; homo
F;1-26/Domain: signal sequence #status predicted <SIG>
F;27-214/Product: vascular endothelial growth factor-3 #status experimental <MAT>
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A;Title: Enhanced expression of multiple forms A;Reference number: S52136; MUID:95101726
A;Accession: S52136
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                                                                                                                                                RESULT
B40080
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A;Experimental source: embryo
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A; Residues: 1-214 < BRE>
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A41551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Homo sapiens (man)
C;Date: 28-Aug-1992 #sequence_revision 28-Aug-1992 #text_change 05-Nov-1999
C;Accession: A41551; C41551; B41551; A40454; B40454; C40454; A40079; A40080;
R;Houck, K.A.; Ferrara, N.; Winer, J.; Cachianes, G.; Li, B.; Leung, D.W.
   R;Tischer E.; Mitchell, R.; Hartman, T.;
J. Biol. Chem. 266, 11947-11954, 1991
A;Title: The human gene for vascular endot
A;Reference number: A40454; MUID:91268072
                                                                                                                                                                                                   A;Molecule type: mRNA
A;Residues: 1-140,'N',183-232 <HOU2>
A;Accession: B41551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N; Contains: vascular endothelial growth factor
                                                                                                               A; Molecule type: mRNA
A; Residues: 1-141, 227-232 <HOU>
                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:S85192; NID:g246155; A;Accession: C41551
                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Reference number: A41551; MUID:92168017
A;Accession: A41551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mol. Endocrinol. 5, 1806–1814, 1991
A;Title: The vascular endothelial growth factor family:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N; Alternate names: vascular permeability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             vascular endothelial growth factor 206 precursor -
                                                                                                                                                                        A; Status: nucleic acid sequence not shown; not
                                                                                                                                                                                                                                                                                        A; Status: nucleic acid sequence
                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: mRNA
A;Residues: 1-232 <HOU1>
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not shown

PID:g246156

factor

human

121

(VEGF 121); VEGF 165; VEGF

identification of a

7

endothelial

growth

factor.

Multiple

protein

form

T.; Silva, M.; Gospodarowicz, D.; Fiddes, J.C.;

compared with conceptual translation

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A; Molecule type: protein
A; Residues: 27-31 <FER>
C; Keywords: alternative splicing; glycoprotein
C; Keywords: alternative splicing; glycoprotein
F;1-26/Domain: signal sequence #status predicted <SIG>
F;27-190/Product: vascular endothelial growth factor #status
F;100/Binding site: carbohydrate (Asn) (covalent) #status pre
                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Reference number: A33255; MUID:89286596
A;Accession: A33255
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A; Residues: 27-190 <TIS>
A; Cross-references: GB:M31836;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: GB:M32976; NID:g163006; PIDN:AAA30502.1; PID:g163007 R;Tischer, E.; Gospodarowicz, D.; Mitchell, R.; Silva, M.; Schilling, J.; Biochem. Biophys. Res. Commun. 165, 1198-1206, 1989 A;Title: Vascular endothelial growth factor: a new member of the platelet.
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A; Accession: B33787
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                                                                                                                                                      12 LALLLYLHHAKWSQAAPMAEGGQKPHEVVKFMDVYQRSFCRPIETLVDIFQEYPDEIEFI 71
                                                                                                                                                                                                                                                 Local
  X
                                    KK 128
                                                                          FKPSCVPLMRCGGCCNDESLECVPTEEFNITMQIMRIKPHQSQHIGEMSFLQHNKCECRP
                                                                                                              LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
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55; Conserv
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Pred.
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No. 1.2e-18;
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A;Description: promotes fluid and protein leakage from blood vessels C;Keywords: alternative splicing; angiogenesis; dimer; disulfide bond; extracellular profit product: vascular endothelial growth factor 206 precursor #status predicted <V2C F;1-165,183-232/Product: vascular endothelial growth factor 189 precursor #status predict F;1-141,227-232/Product: vascular endothelial growth factor 121 precursor #status predict F;1-165/Domain: signal sequence #status predicted <SIG> F;101/Binding site: carbohydrate (Asn) (covalent) #status predicted
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A; Molecule type: DNA
A; Residues: I-141,227-232 <TI3>
A; Residues: I-141,227-232 <TI3>
A; Cross references: GB: M63971; GB: M63972; GB: M63973; GB: M63974; GB: M63975; GB: M63978
A; Cross references: GB: M63971; GB: M63972; GB: M63973; GB: M63974; GB: M63975; GB: M63978
A; Keck, P.J.; Hauser, S.D.; Krivi, G.; Sanzo, K.; Warren, T.; Feder, J.; Connolly, D.
Science 246, 1309-1312, 1989
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A;Cross-references: GDB:132244; OMIM:192240
A;Map position: 6p21-6p12
C;Function:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Experimental source: AIDS-Kaposi's sarcoma cell R;Connolly, D.T.; Olander, J.V.; Heuvelman, D.; Nelson, R.; Monsell, R. J. Biol. Chem. 264, 20017-20024, 1989
A;Title: Human vascular permeability factor. Isolation from U937 cells. A;Reference number: A34492; MUID:90062112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R; Weindel, K.; Marme, D.; Weich, H.À. Biochem. Biophys. Res. Commun. 183, 1167-1174, 1992

B; Title: AIDS-associate Kaposi's saccoma cells in culture express vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Leung, D.W.; Cachianes, G.; Kuang, W.J.; Goeddel, D.V.;
Science 246, 1306-1309, 1989
A;Title: Vascular endothelial growth factor is a secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Title: Vascular permeability factor, an endothelial cell mitogen related to PDGF. A;Reference number: A40079; MUID:90069609
A:Accession: A40079
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A; Residues: 1-140, 'N', 183-232 <TI2>
A; Cross-references: GB:M63971; GB:M63972; GB:M63973;
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A; Residues: 1-140,'N',227-232 <WE2>
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A;Residues: 1-140,'N',183-232 <WEI>
A;Cross-references: EMBL.X62568; NID:937658; PIDN:CAA44447.1;
A;Experimental source: AIDS-Kaposi's sarcoma cell
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A; Residues: 1-140,'N',183-232 <LEU>
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A;Accession: A40080
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A; Residues: 1-165,183-232 <KEC>
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A; Molecule type: DNA
A; Residues: 1-165,183-232
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12
                                                         10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
LALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY 71
                                                                                                                                                        Similarity
                                                                                                                                                 36.7%;
43.9%;
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                                                                                                                      Score 264; DB 2;
Pred. No. 2.4e-18;
1; Mismatches 44
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A;Title: Vascular endothelial growth factor: a new member of the platelet-derived A;Reference number: A33787; MUID:90121225
                                                                                                                                                                                                                                                                                                                                                                                                    vascular endothelial growth factor (version 1) - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 16-Mar-1990 #sequence_revision 16-Mar-1990 #text_change 05-Nov-1999
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A;Molecule type: mRNA
A;Residues: 1-120 <TIS>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ovine vascular endothelial growth factor - sheep C;Species: Ovis orientalis aries, Ovis ammon aries C;Date: 13-Jan-1996 #sequence_revision 01-Mar-1996
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A; Residues: 1-146 < RED>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            67
                                                                            26 PDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCP 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 44.3
les 54; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10
                                           N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FKPSCVPLMRCGGCCNDESLECVPTEEFNITMQIMRIKPHQSQHIGEMSFLQHNKCECRP 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LALLLYLHHAKWSQAAPMAEGGQKPHEVMKFMDVYQRSFCRPIETLVDIFQEYPDEIEFI 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LVPSCYTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
                                           PMAEGGQKPHEVVKFMDVYQRSFCRPIETLVDIFQEYPDEIEFIFKPSCVPLMRCGGCCN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PKK 128
                                                                                                          35.38;
1 Similarity 46.28;
49; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 263.5;
Pred. No. 1.8e
23; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jones, S.C.; Moor, ry, July 1995
                                                                                                                Score 253.5; DB 2;
Pred. No. 1.4e-17;
0; Mismatches 34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.8e-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     42;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (domestic sheep)
                                                                                                                                                    Length
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       128
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                                                                                                                Gaps
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62

DESLECVPTEEFNITMQIMRIKPHQSQHIGEMSFLQHNKCECRPKK

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RESULT
A41236
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Accession: B49530

R;Lyttle, D.J.; Fraser, K.M.; Fleming, S.B.; Mercer, A.A.; Robinson, A.J.
J. Virol. 68, 84-92, 1994

A;Title: Homologs of vascular endothelial growth factor are encoded by the A;Reference number: A49530; MUID:94076465

A;Contents: NZ2

A;Contents: NZ2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                vascular endothelial growth factor homolog A2R, 14.7K - Orf virus
C:Species: Orf virus
C:Date: 07-Apr-1994 #sequence_revision 18-Nov-1994 #text_change 08-Oct-1999
RESULT
I51295
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A; Map
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GB:X54936; NID:g35521; PIDN:CAA38698.1; PID:g35522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-149 < MAG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Accession: A41236
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genetics:
                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                       Cross-references: GDB:134676;
Map position: 14q24-14q31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                              Matches
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                                                                       126 VRCECRPLRE -- KMKPE 140
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RMQILMIRYPSSQ-LGEMSLEEHSQCECRPK 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WSEVLKGSECKPRPIVVPVSETHPELTSQRFNPPCVTLMRCGGCCNDESLECVPTEEVNV 86
                                                                                                         SQCECRPKKKDSAVKPD 136
                                                                                                                                              EVEHMFSPSCVSLLRCTGCCGDENLHCVPVETANVTMQLLKIRSGDRPS--YVELTFSQH 125
                                                                                                                                                                               TVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR---YPSSQLGEMSLEEH 119
                                                                                                                                                                                                                     PCFLQLLAGLALPAVPPQQWALSAGNGSSEVEVVPFQEVWGRSYCRALERLVDVVSEYPS
                                                                                                                                                                                                                                                        PLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMG 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TMELLGASGSGSNGMQRLSFVEHKKCDCRPR 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36;
                                                                                                                                                                                                                                                                                              1 Similarity
46; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                            26.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27.7%;
                                                                                                                                                                                                                                                                                              22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19;
                                                                                                                                                                                                                                                                                                                                                                                                        OMIM:601121
                                                                                                                                                                                                                                                                                          Score 187.5; DB 2;
Pred. No. 4.5e-11;
22; Mismatches 62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 199.5; DB 2
Pred. No. 2.7e-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           growth factor are encoded by the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35;
                                                                                                                                                                                                                                                                                                                               Length
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                                                                                                                                                                                                                                                                                              Indels
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                                                                                                                                                                                                                                                                                                                                 149;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            related to the
                                                                                                                                                                                                                     67
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1;
                                                                                                                                                                                                                                                                                            ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vasculai
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           R:Lyttle, D.J.; Fraser, K.M.; Fleming, S.E. Virol. 68, 84-92, 1994
A;Title: Homologs of vascular endothelial A;Reference number: A49530; MUID:94076465
A;Contents: NZ7
                                                                                                    16K vascular endothelial growth factor homolog A2R - Orf virus C;Species: Orf virus C;Species: Orf virus C;Date: 07-Apr-1994 #sequence_revision 18-Nov-1994 #text_change 08-Oct-1999 C;Accession: D49530
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RESULT 15 D49530

D49530

S.B.;

Mercer,

A.A.;

Robinson,

А.J.

growth

factor

are

encoded by the poxvirus

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vascular endothelial growth factor - quail (fragment)
C;Species: Phasianidae gen. sp. (quail)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 28-Feb-1997
C;Accession: I51295
R;Flamme, I; Breier, G; Risau, W.
Dev. Biol. 169, 699-712, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                placental growth factor precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 19-Oct-1995 #sequence_revision 19-Oct-1995 #text_change 05-Nov-1999
C;Accession: A56125
R;Disalvo, J.; Bayne, M.L.; Conn, G.; Kwok, P.W.; Trivedi, P.G.; Soderman, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;DiSalvo, J.; Bayne, M.L.; Conn, G.; Kwok, J. Biol. Chem. 270, 7717-7723, 1995
A;Title: purification and characterization of A;Reference number: A56125; MUID:95221439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
A56125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: GB:S78343; NID:g999147; PID:g999148 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Reference number:
A; Accession: I51295
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                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-158 <DIS>
                                                                                                                                                                                                                                                                                                                                                                                                                                A; Status: preliminary; not compared
                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Reference number: A; Accession: A56125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Gene:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-128 <F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 31; Conserv
                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                              Query Match
Best Local S
120
                                      117
                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70 PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
                                                                            61 HPNEVSHIFSPSCVLLSRCSGCCGDEGLHCVALKTANITMQILKIPPNRDPHSYV-EMTF 119
                                                                                                                                                                                 4 LLRRLLLAALLQLAPAQAPVSQPD-APGH---QRKVVSWIDVYTRATCQPREVVVPLTVE 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14
                                    EEHSQCECRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PSCVPLMRCAGCCGDEGLECVPVDVYNVTMEIARIKPHQSQHIAHMSFLQHSKCDCRPKK 75
                                                                                                                   LMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMI----RYPSSQLGEMSL 116
                                                                                                                                                           MLAMKLFTCFLQVLAGLAVHSQGALSAGNNSTEMEVVPFNEVWGRSYCRPMEKLVYIADE
SQDVLCECRP
                                                                                                                                                                                                                                             . Similarity 47; Conserv
                                                                                                                                                                                                                                             Conservative
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129
                                    126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25.0%;
                                                                                                                                                                                                                                           24.5%; Score 176; Di
36.2%; Pred. No. 6.20
Live 20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 179.5; DB 2;
Pred. No. 2.3e-10;
0; Mismatches 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                with
                                                                                                                                                                                                                                                                                                                                                                                                                              conceptual
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of a naturally occurring vascular
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                                                                                                                                                                                                                                             DB 2; 1
.2e-10;
les 55;
                                                                                                                                                                                                                                                                                                                                                                                                                                  translation
                                                                                                                                                                                                                                                                                 Length 158
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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A; Mclecule type: mRNA
A; Residues: 70-419 <JOUI>
A; Note: this sequence has been revised in reference $69207
A; Accession: $71443
A; Molecule type: protein
A; Residues: 'X', 104-120 <JOUI>
R; Lee, J; Gray, A; Yuan, J; Luoh, S.M.; Avraham, H.; Wood, W.I.
submitted to the EMBL Data Library, December 1995
A; Description: Vascular endothelial growth factor related protein (VRE
A; Reference number: $69208
A; Mclecule type: mRNA
A; Residues: 1-419 <LEE>
A; Cross-references: EMBL:U43142; NID:g1150988; PIDN:AAA85214.1; PID:g1
R; Morris, J.C.
submitted to the EMBL Data Library, May 1996
A; Reference number: H01557
A. Accession: $070860
A;Cross-references:
C;Genetics:
A;Gene: GDB:VEGFC; V
                                                                 A;Reference number: H01557
A;Accession: G02659
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-419 <MOR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: EMBL:X94216; NID:g1177488; PIDN:CAA63907.1; PID:e221096; A;Note: the nucleotide sequence was submitted to the EMBL Data Library, Decen A;Note: only a part of the translation is shown A;Note: this is a revision to the sequence from reference $61795 R;Joukov, V.; Pajusola, K.; Kaipainen, A.; Chilov, D.; Lahtinen, I.; Kukk, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N;Alternate names: FLT4 ligand DHM C;Species: Homo sapiens (man) C;Date: 27-Apr-1996 #sequence_revision 01-Nov-1996 #sequence_revision 02-Nov-1996 C;Accession: S69207; S61795; S71443; S69208; G02659 R;JOUKOV, V; Pajusola, K.; Kaipainen, A.; Chilov, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary
A;Molecule type: DNA
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-148 <- LYTY
A;Cross-references: GB:S67522; NID:g456900; PIDN:AAB29223.1; PID:g456902
A;Note: sequence extracted from NCBI backbone (NCBIN:141422, NCBIP:141426)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Reference number: S61795;
A; Accession: S61795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Title: A novel vascular endothelial growth factor, A; Reference number: S61795; MUID: 96178224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBO J. 15, 1751, 1996
A; Title: Corrigendum: A novel vascular endothelial A; Reference number: S69207; MUID:96203094
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-419 < JOU>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           vascular endothelial growth factor C
N;Alternate names: FLT4 ligand DHM
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                                             EMBL: U58111;
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                                             NID: g1373426; PIDN: AAB02909.1;
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                                             PID:g1373427
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December 1995
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A; Residues: 1-21 <TAK>
R; Bonthron, D.; Collins, T.; Grzeschik, K.
Genomics 13, 257-263, 1992
A; Title: Platelet-derived growth factor A
A; Reference number: A42002; MUID:92307656
                                                          A; ACCESSION.
A; Molecule type: mRNA
A; Residues: 1-193, 'DVR' <HOP>
A; Cross-references: EMBL: X06374; NID: 935363;
A; Cross-references: MRN: Knott, T.J.; Scot
                                                                                                                                                                         A;Cross-references: GB:X03795; NID:g35365; PIDN:CAA27421.1; A;Experimental source: clonal gliona cell line U-343 MGaC12: R;Hoppe, J.; Schumacher, L.; Eichner, W.; Weich, H.A. FEBS Lett. 223, 243-246, 1987
A;Title: The long 3'-untranslated regions of the PDGF-A and A;Reference number: S00173; MUID:88030061
                                            R;Rorsman, F.; Bywater, M.; Knott, Mol. Cell. Biol. 8, 571-577, 1988
                                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-211 <BET>
                                                                                                                                                                                                                                                                                                                                                               A; Title: cDNA sequence and A; Reference number: A01379; A; Accession: A01379
                                                                                                                                                                                                                                                                                                                                                                                                                                 R; Betsholtz, C.; Johnsson, Nature 320, 695-699, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary; not compared with conceptual A;Molecule type: DNA A;Residues: 152-211 <B02>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-21 <TAK>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Reference number: A28964; MUID:88144463
A;Accession: A28964
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R;Bonthron, D.T.; Morton, C.C.; Orkin, S.H.; Collins, T.
Proc. Natl. Acad. Sci. U.S.A. 85, 1492-1496, 1988
A;Title: Platelet-derived growth factor A chain: gene structure,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Homo sapiens (man)
C;Date: 04-Dec-1986 #sequence_revision 04-Dec-1986 #text_change 18-Feb-2000
C;Accession: A28964; S47564; A42002; A01379; S00173; A28122
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F;1-12/Domain: signal sequence #status predicted <SIG>
F;13-102/Domain: propeptide #status predicted <PRO>
F;103-419/Product: vascular endothelial growth factor C #status experimental
A; Reference number: A28122; MUID:88174698
                     A; Title: Structural characterization of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: A42002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R; Takimoto,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-211 <BON>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           platelet-derived growth factor chain A precursor - human
N;Alternate names: PDGF A-chain; PDGF-1; PDGF-A; platelet-derived growth factor
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                                                                                                                                                      Accession: S00173
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                              chromosomal localization
                                                                                                                                                                                                                                                                                                                                                                                                                                                      A.; Heldin,
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Pred. No. 1.6e-06;
5; Mismatches 51;
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                       human
                                                                 PIDN:CAA29677.1; PID:g35364
tt, J.; Betsholtz, C.
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C:Complex: homodimer; heterodimer (see PIR:PFHUG2)
C:Superfamily: platelet-derived growth factor
C:Superfamily: platelet-derived growth factor
C:Keywords: alternative spilcing; glycoprotein; growth factor; mitogen; platelet
F:1-20/Domain: slignal sequence #status predicted <SIG>
F:21-86/Domain: propeptide #status predicted <PRO>
F:87-211/Product: platelet-derived growth factor chain A #status predicted <PRO>
F:189-162/Region: receptor binding #status predicted
F:169-140,129-177,133-79/Disulfide bonds: #status predicted
F:123/Disulfide bonds: interchain (to chain B-133 in heterodimeric form) #status
F:123/Disulfide bonds: interchain (to chain B-124 in heterodimeric form) #status
F:132/Disulfide bonds: interchain (to 132 in homodimeric form) #status
F:132/Disulfide bonds: interchain (to 132 in homodimeric form) #status
F:132/Disulfide bonds: interchain (to 133 in homodimeric form) #status predicted
F:132/Disulfide bonds: interchain (to 123 in homodimeric form) #status predicted
F:132/Disulfide bonds: interchain (to 123 in homodimeric form) #status predicted
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A;Cross-references: GB:M20488
A;Cross-references: GB:M20488
A;Kross-references: GB:M20488
A;Kote: the authors translated the codon ACA for residue 64 as Arg, CGT for residue 65 a A;Kote: the authors translated the codon ACA for residue 64 as Arg, CGT for residue 65 a C;Comment: Platelet-derived growth factor, a potent mitogen for cells of mesenchymal or:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R; Nakahara, K.; Nishimura, H.; Kuro-o, M.; Takewaki, S. Biochem. Biophys. Res. Commun. 184, 811-818, 1992 A;Title: Identification of three types of PDGF-A chain A; Reference number: JN0248; MUID:92246970 A; Accession: JN0248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           platelet-derived growth factor chain A3 precursor - rabbit (fragment)
c;Species: Oryctologus cuniculus (domestic rabbit)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 27-Jun-1994
C;Accession: JN0248
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A;Gene: GDB:PDGFA
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A; Introns: 21/3; 54/1; 89
RESULT 19
JS0735
platelet-derived growth
C;Species: Oryctolagus
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A; Residues: 1-166 < NAK>
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 45
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                                                                                                                                                                   KRCTGCCNTSSVKCQPSRVHHRSVKVAKVEYVRKKPKLKEVQVRLEEHLECAC 114
                                                                                                                                                                                                                   QRCGGCCPDDGLECVPTGQHQVRMQILMIRY----PSSQLGEMSLEEHSQCEC
                                                                                                                                                                                                                                                                        ARHVAEKPPAPVPVRRKRT-IEEAIPAICKTRTVIYEIPRS-QVDPTSANFLIWPPCVEV
                                                                                                                                                                                                                                                                                                                           AQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVV--VPLTVELMGTVAKQLV-PSCVTV 75
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                                                                                                                                                                                                                                                                                                                                                                                      34;
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growth factor chain Al precursor -
blagus cuniculus (domestic rabbit)
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30.1%;
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Pred. No. 3.4e
24; Mismatches
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Pred. No. 3e-05;
1; Mismatches
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R;Bonthron, D.T.; Morton, C.C.; Orkin, S.H.; Collins, Proc. Natl. Acad. Sci. U.S.A. 85, 1492-1496, 1988 A;Title: Platelet-derived growth factor A chain: gene A;Reference number: A28964; MUID:88144463 A;Accession: B28964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Superfamily: platelet-derived growth factor
E;1-20/Domain: signal sequence #status predicted <SIG>
E;21-89/Domain: propeptide #status predicted <PRO>
F;90-198/Product: platelet-derived growth factor Al chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 27-Jun-1994 (;Accession: JS0735 R;Nakahara, K.; Nishimura, H.; Kuro-o, M.; Takewaki, S.; Iwase, M.; Ohkubo, Biochem. Biophys. Res. Commun. 184, 811-818, 1992 A;Title: Identification of three types of PDGF-A chain gene transcripts in A;Reference number: JN0248; MUID:92246970 A;Accession: JS0735
                                                                                                                                                                                                                                           R;Rorsman, F.; Bywater, M.; Knott, T.J.; Scott, Cell. Biol. 8, 571-577, 1988
A;Title: Structural characterization of the A;Reference number: A28122; MUID:88174698
A;Accession: B28122
                                                                                                                                                                                                                                                                                                                                                                                               A;Reference number: A42002; MUID:92:
A;Accession: B42002
A;Status: preliminary; not compared
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  platelet-derived growth factor chain A precursor splice C;Speckes: Homo sapiens (man) C;Date: 30-Jun-1989 #sequence_revision 30-Jun-1989 #text C;Accession: B28964; B42002; B28122
A;Map position: 7p22-7p22
C;Superfamily: platelet-derived growth factor
C;Keywords: alternative splicing; glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: GB:M21571; GB:J03638; GB:M19984; GB:M19985; R;Bonthron, D.; Collins, T.; Grzeschik, K.H.; van Roy, N.; Speik Genomics 13, 257-263, 1992 a h;Title: Platelet-derived growth factor A chain: confirmation of
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                                                                                          A; Gene: GDB: PDGFA
                                                                                                                                 A;Residues: 1-63,'TRD', 67-196 <ROR>
A;Cross-references: GB:M2048A
A;Note: the authors translated the codon
C;Comment: Exon 6 is spliced out of this
                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-63, 'TRD',
                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 152~196 <BO2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Residues: 1-196 <BON>
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A; Residues: 1-198 <NAK>
                                                                     A; Cross-references:
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                                                                     GDB:120266; OMIM:173430
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30.1%;
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24; Mismatches 46
glycoprotein;
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                                                                                                                                   ACA for variant
                                                                                                                                                                                                                                                                                                                                                                                                      conceptual translation
                                                                                                                                                                                                                                                                                                                                     Scott,
                                                                                                                                                                                                                                                                                            human platelet-derived
                                                                                                                                                                                                                                                                                                                                     J.; Betsholtz,
  growth factor;
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splice f
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  mitogen;
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  platelet
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splice f
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Best Local Similarity Matches 30; Conser

Conservative

22;

Mismatches

17.7%; 30.3%;

Score 127; DB 2; Pred. No. 4.4e-05;

Length 196; Indels

12;

Gaps

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A;Cross-references: EMBL:Z14120; NID:g56865; PIDN:CAA78490.1; PID:g56866 R;Herren, B.; Weyer, K.A.; Rouge, M.; Loetscher, P.; Pech, M. Biochim. Biophys. Acta 1173, 294-302, 1993 A;Title: Conservation in sequence and affinity of human and rodent PDGF ligands. A. Reference number: S33764; MUID:93305723 A;Accession: S33764 A;Molecule type: mRNA A;Molecule type: mRNA A;Residues: B9-172 <HER2> A;Cross-references: EMBL:Z14120 C;Keywords: growth factor; mitogen; platelet
               A; Residues: 1-245 <VAN>
C; Genetics:
A; Gene: sis
C; Superfamily: platelet-derived growth factor
C; Superfamily: platelet-derived growth factor
C; Keywords: glycoprotein; growth factor; platelet; proto-oncogene;
F; 21-20/Domain: signal sequence #status predicted <SIG>
F; 21-20/Pomain: propeptide #status predicted <PRO>
F; 82-194/Product: platelet-derived growth factor chain B #status preficted F; 163-167/Region: receptor binding #status predicted
F; 63/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 platelet-derived growth factor chain A precursor - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 07-Apr-1994 #sequence_revision 07-Apr-1994 #text_change 16-Jul-1999
C; Accession: $25096; $33764
R; Herren, B.; Weyer, K.A.; Rouge, M.; Loetscher, P.; Pech, M.
submitted to the EMBL Data Library, July 1992
A; Description: Cross-species conservation in sequence and function of PDGF 1A; Rocession: $25096
A; Rocession: $25096
A; Molecula type: mRNA
A; Residues: 1-197 <HERL)
A; Residues: 1-197 <HERL)
                                                                                                                                                                                                              A; Reference number: A:
A; Accession: A26402
A; Molecule type: mRNA
A; Residues: 1-245 <VAI
                                                                                                                                                                                                                                                                          R;Van den Ouweland, A.M.W.; Van Groningen, J.J.M.; Schalken, J.A.; Nuccleic Acids Res. 15, 959-970, 187 A;Title: Genetic organization of the c-sis transcription unit. A;Reference number: A26402; MUID:87146463
                                                                                                                                                                                                                                                                                                                                                              C;Date: 30-Jun-1989 #sequence_revision
C;Accession: A26402
                                                                                                                                                                                                                                                                                                                                                                                                      platelet-derived growth factor chain B precursor - con N; Alternate names: PDGF-related transforming protein C; Species: Felis silvestris catus (domestic cat)
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Best Local S
Matches 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         146 AKVEYVRKKPKLKEVQVRLEEHLECAC----ATSNLNPD 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                153
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LMIRY----PSSQLGEMSLEEHSQCECRPKKKDSAVKPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AVCKTRTVIYEIPRS-QVDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKV 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AKVEYVRKKPKLKEVQVRLEEHLECAC----ATTSLNPD 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LMIRY----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCOPREVV -- VPLTVELMGTVAKQLV - PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 127; DB 2;
Pred. No. 4.4e-05;
0; Mismatches 36
                                                                                                                                                                                                                                                                                                                                                                                  30-Jun-1989 #text_change 31-Mar-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  cat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12;
                                                         predicted
                                                                                                                                                                                                                                                                                                                                            Van
                                                                                                                       transforming
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of PDGF ligands and
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                                                                                                                                                                                                                                                                                                                                            Neck, H.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
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                                                                                                                                                                                                                                                                          A; Residues:
C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Accession: A01381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
A; Residues: 1-196 <MER>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
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Best Local
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Best Local
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90
                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
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                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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A;Title: Nucleotide sequence of the simian sarcoma virus genome:
A;Reference number: A03982; WUID:83144004
A;Accession: A01381
A;Molecule type: genomic RNA
A;Molecule type: genomic RNA
A;Residues: 1-226 <DEV>
                                                                                                                                                                                      A;Gene: sis
C;Superfamily: platelet-derived growth factor
C;Keywords: growth factor; transforming protein
C;Keywords: growth factor; transforming protein
F;6-226/Domain: platelet-derived growth factor chain B similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GB:M29464
C;Superfamily: platelet-deriv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Selective expression of PDGF A and i
A;Reference number: A37359; MUID:90169294
A;Accession: A37359
A;Status: preliminary; nucleic acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             platelet-derived growth factor chain A precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 19-Mar-1993 #sequence_revision 19-Mar-1993 #text_change 07-May-1999
C;Accession: A37359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: simian sarcoma virus
C;Date: 23-Jul-1983 #sequence_revision 20-Sep-1984 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Mercola, M.; Wang, C.; Kelly, J.; Brownlee, C.; Jackson-Grusby, L.; Stiles, Dev. Biol. 138, 114-122, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N; Alternate names: p28-sis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PDGF-related transforming protein (sis) -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     153 AKVEYVRKKPKLKEVQVRLEEHLECAC----ATSNLNPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               102 LMIRY----PSSQLGEMSLEEHSQCECRPKKKDSAVKPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 156 QVRKIEIVRKRPVFKKATVTLEDHLACKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              45 ATCOPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AVCKTRTVIYEIPRS-QVDPTWANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKV 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
  AECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRNVQCRPT--
                                          ATCQPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               platelet-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -YPSSQLGEMSLEEHSQCEC
                                                                                                             17.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17.5%; Score 126; 31.3%; Pred. No. 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               growth factor
                                                                                                             Score 123; DB 1;
Pred. No. 0.00012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 127; DB 1;
Pred. No. 5.4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        simian sarcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           its receptor during early mouse embryogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 2;
5.5e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           not shown; not compared with conceptual
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  136
                                                                                       29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36;
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                                                                                                                                  Length 226;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 196;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
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-QVQLRPV 136
                                                                                       12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-Oct-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                        S.A.
                                                                                                                                                                                                                                                                                                                                                                                                              demonstration
                                                                                     Gaps
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                                                                                       4;
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A;Residues: 17-20,'RQ', 22-241 <CHI>A;Cross-references: GB:K01917; NID:g338197
A;Cross-references: GB:K01917; NID:g338197
R;Rao, C.D.; Igarashi, H.; Chiu, I.M.; Robbins, K.C.; Aaronson, S.A.
Proc. Natl. Acad. Sci. U.S.A. 83, 2392-2396, 1986
A;Title: Structure and sequence of the human c-sis/platelet-derived A;Reference number: A23532; MUID:86205961
A;Accession: A23532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 platelet-derived growth factor chain B precursor [validated] - human N;Alternate names: PDGF B-chain; PDGF-B; PDGF-II; PDGF-related transforming protein C;Species: Homo sapiens (man) C;Date: 18-Apr-1984 #sequence_revision 20-Sep-1984 #text_change 08-Dec-2000 C;Date: 18-Apr-1984 #sequence_revision 20-Sep-1984 #text_change 08-Dec-2000 C;Accession: A94276; A21024; A23532; A93366; A25141; A94271; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A94271; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A94271; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A94271; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A94271; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A94271; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A94271; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A94271; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A94271; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A942771; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A942771; A93308; A43499; S5611 C;Accession: A94276; A21024; A23532; A93366; A25141; A942771; A93308; A43499; S5611 A21024; A23532; A93366; A25141; A942771; A93308; A43499; S5611 A21024; A23532; A93366; A25141; A942771; A93308; A43499; S5611 A21024; A23532; A93366; A25141; A942771; A93308; A43499; S5611 A21024; A23532; A93366; A25141; A942771; A93308; A43499; S5611 A21024; A23532; A93366; A25141; A942771; A93308; A43499; S5611 A21024; A23532; A93366; A25141; A942771; A93308; A43499; S5611 A21024; A23532; A93366; A25141; A942771; A93308; A43499; S5611 A21024; A23514; A94271;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: protein
A; Residues: 82-100, 'E', 102-104, 'C', 106, 'C', 108-110 <ANT>
R; Waterfield, M.D.; Scrace, G.T.; Whittle, N.; Stroobant,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 26-241 < WEI>
A; Cross-references: GB:X03702; NID:g35374; PIDN:CAA27333.1; PID:g35375
A; Cross-references: GB:X03702; NID:g35374; PIDN:CAA27333.1; PID:g35375
R; Antoniades, H.N.; Hunkapiller, M.W.
Science 220, 963-965, 1983
A; Title: Human platelet-derived growth factor (PDGF): amino-terminal amino A; Reference number: A94271; MUID:83197379
A; Accession: A94271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: GB:X02811; NID:g35371; PIDN:CAA26579.1; PR:Weich, H.A.; Sebald, W.; Schairer, H.U.; Hoppe, J. FEBS Lett. 198, 344-348, 1986
A;Title: The human osteosarcoma cell line U-2 OS expresses a A;Reference number: A25141; MUID:86164981
A;Accession: A25141
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A;Accession: A21024
A;Title: Human proto-oncogene
A;Reference number: A43499; MU
A;Accession: A43499
A;Status: not compared with cc
A;Molecule type: DNA
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A;Title: Transforming potential of human c-sis nucleotide sequences encoding platelet-de A;Reference number: A94276; MUID:84250225

A;Accession: A94276
                                                                                                                                                                                                                                               R; Josephs, S.F
                                                                                                                                                                                                                                                                                                                                                                  Nature 304, 35-39, 1983
A;TILLe: Platelet derived growth factor is
A;Reference number: A93308; MUID:83244981
A;Accession: A93308
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A; Residues: 1-241 <COL>
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A;Accession: A93366
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                                                                                                                                                                                                    R; Josephs, S.F.; Guo, C.; 1
Science 223, 487-491, 1984
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                                                                                                                                                                                                                                          .; Ratner, L.;
                                          conceptual translation
                                                                                                                       ne nucleotide sequences
MUID:84097555
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A;Status recent mRNA
A;Molecule type: mRNA
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A;Cross-references: EMBL:X83705; NID:g951023; PIDN:CAA58679.1; PID:g951025
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A;Cross-references: MFIMGL',22-200 <DIR>
A;Cross-references: MFIMGL',22-200 <DIR>
A;Cross-references: MFIMGL',22-200 <DIR>
A;Cross-references: MFIMGL',22-200 <DIR>
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A;Cross-references: MFIMGL',22-200 <DIR
A;Cross-references: MFIMGL',22-2
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A;Title: Mistranslation of a TGA termination codon A;Reference number: S56115; MUID:95351967
A;Accession: S56115
F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-81/Domain: amino-terminal propeptide #status predicted <PRO>
F;21-81/Domain: amino-terminal propeptide #status predicted <PRO>
F;82-190/Product: platelet-derived growth factor chain B #status experimental <MAT>
F;159-163/Region: receptor binding #status predicted
F;191-241/Domain: carboxyl-terminal propeptide #status predicted <CTP>
F;97-141,130-178,134-180/Disulfide bonds: #status experimental
F;124/Disulfide bonds: interchain (to 133 in homodimeric form) #status experimental
F;124/Disulfide bonds: interchain (to 124 in homodimeric form) #status experimental
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A;Map position: 22q12.3-22q13.1
A;Introns: 57/3; 94/1; 192/3; 241/1
C;Complex: homodimer; heterodimer (see PIR:1C;Superfamily: platelet-derived growth factor; Keywords: growth factor; mitogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: EMBL:X63966; NID:g311378; PIDN:CAA45383.1; PID:g35377 A;Note: mutagenized recombinant sequence C;Comment: Platelet-derived growth factor, a potent mitogen for cells of c C;Genetics:
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A;Molecule type: DNA
A;Residues: 'SLSL',17-20,'RQ',22-241 <JOH>
A;Residues: 'SLSL',17-20,'RQ',22-241 <JOH>
A;Residues: 'SLSL',17-20,'RQ',22-241 <JOH>
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A;Residues: 'SLSL',17-20,'RQ',22-241 <JOH>
A;Dirks, R.P.H.; Onnekink, C.; Jansen, H.J.; de Jong, A.; Bloemers, H.P.J.
Rucleic Acids Res. 23, '2815-2822, 1995
A;Title: A novel human c-sis mRNA species is transcribed from a promoter in A;Reference number: SS8382; MUID:95388493
A;Accession: S58383
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Nucleic Acids Res. 13, 5007-5018, 1985
A;Title: Nucleotide sequence of transforming
A;Reference number: I37266; MUID:85269623
A;Accession: I37266
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A;Title: The 5' untranslated sequence of the c-s
A;Reference number: I57635; MUID:88094398
A;Accession: I57635
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A; Residues: 'M',82-241 <COO>
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A; Residues: 1-241 < RAT>
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A; Residues: 1-20 < RAO2>
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MUID:84236121
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F;133/Disulfide

bonds:

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R; Bejcek, B.E.; Li, D.Y.; Deuel, T.F.

Nucleic Acids Res. 18, 680, 1990
A; Title: Nuclectide sequence of a cDNA clone of Xenopus platelet-A; Reference number: S08220; MUID:90175018
A; Accession: S08220
A; Status: translation not shown
A; Molecule type: mRNA
A; Residues: 1-215 <BEL'>
A; Cross-references: EMBL:X17545; NID:964973; PIDN:CAA35583.1; PID C; Superfamily: platelet-derived growth factor C; Keywords: alternative splicing; growth factor C; Keywords: alternative splicing; growth factor F; 1-22/Domain: signal sequence #status predicted <SIG>F; 23-91/Domain: propeptide #status predicted <FRO>
F; 23-91/Product: platelet-derived growth factor chain A #status
                                                                                                        platelet-derived growth factor A chain short form precursor - African clawed (.Species: Xenopus laevis (African clawed frog)
C.Species: Xenopus laevis (African clawed frog)
C.Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 16-Jul-1999
C.Accession: 151551
R;Mercola, M.; Melton, D.A.; Stiles, C.D.
Science 241, 1223-1225, 1988
A;Title: Platelet-derived growth factor A chain is maternally encoded in Xeno;
A;Reference number: I51550; MUID:88321676
A;Accession: I51551
A;Accession: I51551
A;Accession: I51551
A;Residues: 1-200 (MER)
A;Residues: 1-200 (MER)
A;Cross-references: GB:M23238; NID:g214650; PIDN:AAA49928.1; PID:g214651
C;Superfamily: platelet-derived growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        platelet-derived growth factor chain A precursor - African clawed frog C;Species: Xenopus laevis (African clawed frog) C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 16-Jul-1999 C;Accession: S08220 R;Bejcek, B.E.; Li, D.Y.; Deuel, T.F.
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                     28;
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                                   Score 119; DB 2;
Pred. No. 0.00027
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Pred. No. 0.00026;
0; Mismatches 38;
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Pred. No. 0.00013;
7; Mismatches 29;
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A; Reference number: A48851; MUID:93191115
A; Accession: A48851
A; Molecule type: mRNA
A; Residues: 1-196 < KATY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            platelet-derived growth factor chain A precursor (version 2) - rat C; Species: Rattus norvegicus (Norway rat) C; Species: 19-Dec-1993 #sequence_revision 18 Nov-1994 #text_change 16-C; Accession: A48851; 151891 C; Accession: A48851; 151891 R; Katayose, D.; Ohe, M.; Yamauchi, K.; Ogata, M.; Shirato, K.; Fuji Am. J. Physiol. 264, L100-L106, 1993 A.; Tittle: Increased expression of PDGF A- and B-chain genes in rat 1
                                                                                                                                                                                                                                                                                                                      A; Note: sequence extracted from C; Superfamily: platelet-derived
                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GB:D10106; NID:g220839; PIDN:BAA00987.1; A;Experimental source: brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: GB:M23237; NID:g214648; PIDN:AAA49927.1; PID:g214649 C;Superfamily: platelet-derived growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Title: Platelet-derived growth factor A chain A; Reference number: IS1550; MUID:88321676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R:Mercola, M.; Melton, D.A.; Stiles, C.D. Science 241, 1223-1225, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             platelet-derived growth factor A chain long form precursor - African clawed C;Species: xenopus laevis (African clawed frog) C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 16-Jul-1999 C;Accession: I51550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Residues: 1-226 <MER>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Status: preliminary; translated
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                                                118 EHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        158 AKVEYVRKKPKLKEVLVRLEEHLECTC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 45 ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
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                                                                                                                           TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRY----PSSQLGEMSLE 117
EHLECAC---
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                                                                                             TSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKVAKVEYVRKKPKLKEVQVRLE:172
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                                                                                                                                                                                                                      Similarity
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-ATSNLNPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           M.; Yamauchi, K.; Ogata, M.; Shirato, K.; Fujita, H.; Shibahara
L100-L106, 1993
                                                                                                                                                                                                                    16.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16.6%;
  187
                                                                                                                                                                                                                                                                                                                      NCBI backbone (NCBIP:126515) growth factor
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                                                                                                                                                                                                Score 117.5;
Pred. No. 0.00
14; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 119; DB 2;
Pred. No. 0.0003;
8; Mismatches 3;
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                                                                                                                                                                                                                      ; DB 2
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A;Gene: sis
C;Superfamily: platelet-derived growth factor
C;Superfamily: platelet-derived growth factor; platelet; proto-
C;Keywords: glycoprotein; growth factor; platelet cSIG>
F;1-20/Domain: signal sequence #status predicted <PRO>
F;21-81/Domain: propeptide #status predicted <PRO>
F:82-190/Product: platelet-derived growth factor chain B
F;159-163/Region: receptor binding #status predicted
F;63/Binding site: carbohydrate (Asn) (covalent) #status
                                                                                                                                                                                                                                                                                                                                                   C:Species: Mus musculus (house mouse)
C:Date: 31-Dec-1992 #sequence_revision 31-Mar-1993 #text_change 18-Jun-1999
C:Accession: A39073
R:Bonthron, D.T.; Sultan, P.; Collins, T.
Genomics 10, 287-292, 1991
A:Title: Structure of the murine c-sis proto-oncogene (Sis, PDGFB) encoding A; Reference number: A39073; MUID:91257844
A; Accession: A39073
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 $25097

platelet-derived growth factor chain B precursor - rat (fragment)

c;Species: Rattus norvegicus (Norway rat)

c;Date: 07-Apr-1994 #sequence_revision 07-Apr-1994 #text_change 16-Jul-1999

c;Accession: $25097; $33765; I52866

R;Herren, B.; Weyer, K.A.; Rouge, M.; Loetscher, P.; Pech, M.

submitted to the EMBL Data Library, July 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     platelet-derived growth factor chain B precursor (sis) - N; Alternate names: PDGF-related transforming protein
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PFMSGB
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A; Accession: I52866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: EMBL:Z14117
R;Lindner, V.; Giachelli, C.M.; Schwartz, S.M.; Reidy, M.A. Circ. Res. 76, 951-957, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Description: Cross-species conservation in A;Reference number: S25096.
A;Accession: S25097
                                                                                                                                                                                                                                           A;Cross-references: GB:M64849; GB:M55394; NID:g192818; PIDN:AAA37485.1; PID:g192820 C;Genetics:
                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-241 <BON>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Superfamily: platelet-derived growth factor
C;Keywords: growth factor; mitogen; platelet
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:L40991; NID:g727177;
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A; Residues: 74-182 < RES>
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A; Residues: 89-172 <HER2>
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A; Residues: 1-225 <HER1>
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  87
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              32;
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Pred. No. 0.00082;
9; Mismatches 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -ETVVTP 178
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                                                                    #status predicted
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PDGF-related transforming protein (v-si
C;Species: simian sarcoma virus
C;Date: 28-Sep-1987 #sequence_revision
                                                                                                  F;1-17/Domain: secretory signal sequence #status predicted <SIG> F;18-370/Product: spinal cord-derived growth factor-B #status predicted <MAT> F;52-170/Region: CUB domain #status predicted F;272-370/Region: homologous to platelet-derived growth factor/vascular endothelial g F;294-308/Region: conserved motif #status predicted
                                                                                                                                                                                                                                                                                                                  Biochem. Biophys. Res. Commun. 280, 733-737, 2001
A;Title: Molecular cloning of SCDGF-B, a novel growth factor homologous A;Reference number: JC7591; MUID:21092670; PMID:11162582
A;Contents: Fetal brain
A;Accession: JC7592
                                                                                                                                                                                                                                                                                                                                                                                                  C;Accession: JC7592
C;Accession: JC7592
R;Hamada, T.; Ui-Tei, K.; Imaki, J.; Miyata, Y.
R;Hamada, T.; Ui-Tei, K.; Imaki, J.; Miyata, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     spinal cord-derived growth factor-B precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 24-Aug-2001
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A;Molecule type: protein
A;Residues: 1-271 <HAN>
A;Rote: deletions in the C-Terminal Coding Region of the v-sis Gene: Dimerization
C;Superfamily: platelet-derived growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R; Hannink, M.; Sauer, M.K.; Donoghue, D.J. Mol. Cell. Biol. 6, 1304-1314, 1986 A; Reference number. A25669; MUID:87064399 A; Accession: A25669
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C;Genetics:
                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-370 <HAM>
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Query Match
Best Local S
Matches 34
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                 13.3%; 27.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15.4%; Score 111; DB 2; 33.7%; Pred. No. 0.0021; tive 17; Mismatches 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17;
                 Score 95.5; DB Pred. No. 0.092;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 114; DB 1;
Pred. No. 0.00098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ed. No. 0.00
Mismatches
Mismatches
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                                        Length 370;
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Conservative

18;

Indels

27;

Gaps

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A; Start codon: (C; Superfamily: | F; 4-68/Domain: (
                                                                                            A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-378 <SMJ
                                                                                                                                                                      hypothetical protein B1937_F2_56 - Mycobacterium leprae ;Species: Mycobacterium leprae C;Date: 19-Mar-1997 #sequence_revision 25-Apr-1997 #text C;Accession: S7259  
R;Smith, D.R.; Robison, K. submitted to the EMBL Data Library, November 1993 A;Reference number: S72580
                                                                                                                                                                                                                                                                                                             RESULT
S72599
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F;272-370/Region: homologous to platelet-derived growth factor/vascular endothelial
F;294-308/Region: conserved motif #status predicted
                                                                                                                                                        A;Reference number: A;Accession: S72599
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                                                            C; Genetics:
                                                                            A; Cross-references: EMBL: U00016; NID: 9466961; PIDN: AAA17167.1;
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C;Spec
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A; Residues: 1-370 <HAM>
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A; Accession: JC7591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R; Hamada, T.; U1-Te1, K.; Imak1, J.; Miyata, Y.
Biochem. Biophys. Res. Commun. 280, 733-737, 2001
A;Title: Molecular cloning of SCDGF-B, a novel growth factor homologous to SCDGF/PDGF-C/A;Reference number: JC7591; MUID:21092670; PMID:11162582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 24-Aug-2001 C;Accession: JC7591
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HSRK--SKVDLDRLNDDAKRYSCTPRNYSVNIREELKLANVV--FFPRCLLVQRCGGNCG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMALVDIQLDHHERCDCICSSR
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heat shock protein dnaJ; dnaJ amino-terminal homology dnaJ amino-terminal homology <DNJ>
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                                                                          PID: g466981
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Nakazaki, N.; Shimpo, S.; Sugımoto, P., James Nakazaki, N.; Shimpo, S.; Sugımoto, P., James Nakazaki, N.; Shimpo, S.; Sugımoto, P., James Nitrogen-fixing Cyanobacterium DNA Res. 8, 205-213, 2001

A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Title: Complete Genomic Sequence of the Filamentous Nitrogen Nitrogen O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title: Complete Genomic Sequence O;Title:
A; Experimental source: strain PCC C; Genetics:
                                                                                                                                                                                                                                                                                                                 C;Accession: AI2071
C;Accession: AI2071
R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.;
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AI2071
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Best Local Similarity
Thehes 27; Conserva
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C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 20-Jun-2000 C;Accession: T31561
R;McMurray, A.
                                                                 A; Cross-references: GB:BA000019; PIDN:BAB73826.1;
                                                                                                A; Molecule type: DNA
A; Residues: 1-452 <KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                        A;Note: Anabaena sp. (strain PCC 7120)
C;Date: 14-Dec-2001 #sequence_revision
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C; Superfamily: gliadin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             submitted to the EMBL Data Library, September 1999 A;Reference number: Z21045 A;Accession: T31561 A;Status: preliminary; translated from GB/EMBL/DDBJA;Status: preliminary;
                                                                                                                                                                 A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypothetical protein all2127 [imported] - Anabaena sp.
C;Species: Anabaena sp.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       110
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81 CCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQC--ECRPKKKDSA 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26 PDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSC-----VTVQRCGG 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EHSQCECRP 126
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VAKQLVPSCVTVQRCGGC-----CPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLE 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PGSDSLLPMWLDLEECATGVTKQVTVDTAVLCDRCQGKGTNGDSAPIPCDTCGGRGEVQT 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL: AL117193; PIDN: CAB54984.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (strain PCC 7120)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10.8%;
23.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 77.5; D
Pred. No. 4.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 78;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                               is a synonym of Nostoc sp. strain PC 14-Dec-2001 #text_change 11-Jan-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
4.7;
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                                                                 PID:g17131218; GSPDB:GN00179
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                                                                                                                                                                                                                                                                                                                                                                 Sasamoto,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CESP:Y105C5A.d
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (strain PCC 7120)
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                                                                                                                                                                                                                                                                                                                              Watanabe, ; Yasuda, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    strain PCC
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probable iron-sulfur protein YPO2245 [imported] - Yersinia pestis (strain CO92) C;Species: Yersinia pestis
C;Species: Yersinia pestis
C;Cpate: 02-Nov-2001 #sequence_revision 02-Nov-2001 #text_change 09-Nov-2001
C;Accession: AG0273
R;Parkhill, J; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prentice, M.B. deno-Tarraga, A.M.; Chillingworth, T.; Cronin, A.; Davis, R.M.; Davis, P.; Dougan, G.; il, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; Whitehead, S.; Barrell, Nature 413, 523-527, 2001
A;Title: Genome sequence of Yersinia pestis, the causative agent of plague.
A;Reference number: AB0001; MUID:21470413; PMID:11586360
A;Accession: AG0273
A;Status: preliminary
A;Maccession: Ag0273
A;Status: preliminary
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A; Introns: 18/3
C; Superfamily: gliadin
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A;Accession: T31560
A;Status: preliminary; translated from GB/EMBL/DDBJ
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    Query Match
Best Local Similarity
"hes 25; Conserv?
                                                                                                                 A; Gene: YPO2245
C; Superfamily: (
                                                                                                                                                            C; Genetics:
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A; Residues: 1-188 < KUR>
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A; Residues: 1-335 <WIL>
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                    Conservative
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                                                                                                                   hypothetical protein HI1684; ferredoxin
                                       10.4%;
27.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18; Mismatches
                      13;
                  Score 75; DB
Pred. No. 4.8;
13; Mismatches
                                                                                                                                                                           PIDN:CAC91051.1; PID:g15980245;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 76; DB Pred. No. 8.7;
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                                                         DB 2; Length 188;
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                                                                                                                                                                                                                                    hypothetical protein T05B4.4 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #t C;Accession: T31B40 R;Bradshaw, H.
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T31559
                                                                                                                                                        A; Reference number: Z21092
A; Accession: T31840
                                                                                                                                                                                             R; Bradsnaw, n.
submitted to the EMBL Data Library,
The sequence of C. e.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Date: 29-Oct-1999 #sequence_revision
C;Accession: T31559; T31562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hypothetical protein Y105C5A.b - N; Alternate names: Y105C5A.e
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A; Map
                  C;Genetics:
A;Gene: CESP:T05B4.4
                                                         A;Cross-references: EMBL:AF016445; PIDN:AAC69056.1; GSPDB:GN00023; CESP:T05B4.4 A;Experimental source: strain Bristol N2; clone T05B4
                                                                          A; Cross-references:
                                                                                                A; Molecule type: DNA
A; Residues: 1-293 <BRA>
                                                                                                                                 A; Status: preliminary; translated from GB/EMBL/DDBC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R; McMurray, A.
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Best Local
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position:
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                                                                                                                                                                                             elegans
                                                                                                                                                                                                                  July 1997
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cosmid T05B4

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A;Cross-references: EMBL:AL117193; PIDN:CAB54985.1; A;Experimental source: clone Y105C5A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A:Status: preliminary; translated from GB/EMBL/DDBJ
                                           19 AQAPVS-QPDA-PGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSC---- 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
APAPVQCQPSCMPACEQSCVA------PAPQVISLNLEVVPQCQQQCAPQCQQPS
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                                                                                                               10.4%; Score 75; DB 2; 24.4%; Pred. No. 8.3;
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                                                                                            Mismatches
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                                                                                              51;
                                                                                                                                          Length 335;
                                                                                                                                                                                                                                                                                                                                CESP:Y105C5A
                                                                                            24;
                                                                                         Gaps
171
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A; Introns:

20/1;

35/2;

78/3; 162/1

A; Map position:

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Science 282, 2012-2018, 1998
A;Title: Genome sequence of the nematode C. elegans: a platform for investigating biolog A;Ritle: Genome sequence of the nematode C. elegans: a platform for investigating biolog A;Reference number: A75000; MUID:99069613; PMID:9851916
A;Rote: see websites genome.wustl.edu/gsc/C_elegans/ and www_sanger.ac.uk/Projects/C_ele A;Rote: published errata appeared in Science 283, 35, 1999; Science 283, 2103, 1999; ann A;Accession: E88550
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-1416 <STO>
A;Cross-references: GB:chr_III; PIDN:CAA79569.1; PID:93881446; GSPDB:GN00021; CESP:ZC84
A;Note: similar to Serine protease inhibitor, Kunitz type
C;Genetics:
A;Gene: ZC84.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein ZC84.1 [imported] - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 10-May-2001 #sequence_revision 10-May-2001 C;Accession: E88550 | C;Date: 10-May-2001 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E88550 | C;Accession: E8855
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A;Experimental source: strain H37Rv
C;Genetics:
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Nature 393, 537-544, 1938.

A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.C.

A;Title: Deciphering the biology of Mycobacterium tuberculosis from the complex: A;Reference number: A70500; MUID:98295987
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C; Superfamily:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVY-----TRATCQPREVVVPLTVEL
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Pred. No. 15;
11; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 74; DB 2
Pred. No. 9.1;
6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6;
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15;
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A;Introns: 14/1; 32/3; 57/1; 192/3; 277/1; 398/1; 439/1; 474/1; 497/1; 813/1 493/1; 2555/1; 2770/1; 2739/3; 2819/1
C;Superfamily: animal Kunitz-type proteinase inhibitor homology
F;220-274/Domain: animal Kunitz-type proteinase inhibitor homology <BPI1>
F;343-395/Domain: animal Kunitz-type proteinase inhibitor homology <BPI2>
F;442-492/Domain: animal Kunitz-type proteinase inhibitor homology <BPI3>
F;446-598/Domain: animal Kunitz-type proteinase inhibitor homology <BPI5>
F;467-706/Domain: animal Kunitz-type proteinase inhibitor homology <BPI5>
F;1652-1716/Domain: animal Kunitz-type proteinase inhibitor homology <BPI6>
F;1682-1716/Domain: animal Kunitz-type proteinase inhibitor homology <BPI7>
F;1845-1895/Domain: animal Kunitz-type proteinase inhibitor homology <BPI7>
F;1845-1895/Domain: animal Kunitz-type proteinase inhibitor homology <BPI9>
F;1952-2004/Domain: animal Kunitz-type proteinase inhibitor homology <BPI9>
F;2097-2152/Domain: animal Kunitz-type proteinase inhibitor homology <BPI9>
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A; Residues: 1-2844 < THO>
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C;Species: Caenorhabditis elegans
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #
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Best Local Similarity
Matches 40; Conser
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1149 NKAKLGEACLTVRQCQENSGCIEGSCECKKGFIEKAGKCMTPVEKKSAV
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                                                                                                                                                                                1045 PEKCVVGQSNCPRGFACQKSLAGHHVCCTVRKV----
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                                           PSSQLGEMSL----EEHS----QCECR-----
                                                                                      ECHAQVGPGSECLANEQCTGGSVCEDAKCECRPPLKAVGGFCQEEIQCSSNQVLHNGLCH 1148
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                                                                                                                                   TVAKQLVP--SCVTVQRC--GGCCPDDGLECVPT----
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23.7%;
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23.7%;
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                                                                                                                                                                                                                                                                                              Score 73.5;
Pred. No. 83;
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Pred. No. 44;
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                                                                                                                                   -GQHQVRM---QILM--IRY 106
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hypothetical protein F35E8.10 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 26-May-2000 C;Accession: T21785; T21791

T21785

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A; Cross-references: EMBL:Z81529; PIDN:CAB04291.1; GSPDB:GN00023; CESP:F35E8.10
A; Experimental source: clone F35E8
A; Accession: T21791
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 1-249 <WIZ>
A; Cross-references: EMBL:Z81529; PIDN:CAB04297.1; GSPDB:GN00023; CESP:F35E8.13
A; Experimental source: clone F35E8
C; Genetics:
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submitted to the EMBL Data Library, November 1996
A;Reference number: 219472
A;Accession: T21785
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-249 <WILL
A;Residues: 1-249 <WILL
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A;Map position: 5
A;Introns: 33/3; 121/1
C;Superfamily: Caenorhabditis elegans hypothetical protein C49G7.3
Search completed: September 10, 2002, 02:51:08 Job time: 3576 sec
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03548 rattus norv
099kr0 equus cabal
P49151 sus scrofa
099ps1 mesocricetu
P16612 rattus norv
09myv3 canis famil
000731 mus musculu
P15691 bos taurus
P15692 homo sapien
P50412 ovis aries
P26617 cavia porce
P52582 gallus gall
P52584 orf virus (
09xs47 bos taurus
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אַבטרטס װוּלַרטטמרנפני	010700 murchartari	· Q62181 mus musculu	P14652 homo sapien	096433 drosophila	P26770 rattus norv	P28797 cavia porce				Q95229 ovis aries		Q05028 rattus norv

## ALIGNMENTS

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AB004274; BAA77686.1; AB004273; BAA77685.1; AP099134; AAG29746.1; P16692; IVPP. PFCO; IPR000072; PDGF. PF00341; PDGF; 1. m; PD001629; PDGF; 1. ; SM00141; PDGF; 1. ; SM00141; PDGF; 1.	This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).	Submitted (CCY-1998) to the EMBL/GenBank/Dub/ databases.  -: FUNCTION: Growth factor for endothelial cells VEGF-B167 binds heparin and neuropilin-1 whereas the binding to neuropilin-1 of VEGF-B186 is regulated by proteolysis (By similarity).  -: SUBUNIT: Homodimer; disulfide-linked. Can also form heterodimer with vegf (By similarity).  -: SUBCELLULAR LOCATION: Secreted but remains associated to cells or to the extracellular matrix unless released by heparin (By similarity).  -: SUBCELLULAR PRODUCTS: At least 2 isoforms; VEGF-B186 (shown here) and VEGF-B186 is O-glycosylated (By similarity).  -: SIMILARITY: BELLONGS TO THE POOF/VEGF FAMILY OF GROWTH FACTORS.  -: SIMILARITY: BELLONGS TO THE POOF/VEGF FAMILY OF GROWTH FACTORS.	MCBI_TaxID=9913; [1] SEQUENCE FROM N.A. SEQUENCE FROM N.A. TISSUE-Heart; Liu X., Yonekura H., Yamagishi S., Yamamoto Y., Yamamoto H.; "Structure and expression of bovine VEGF family."; submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases. [2] SEQUENCE OF 38-104 FROM N.A. TISSUE-Heart; Mandriota S.J., Pepper M.S.;	

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01-MAR-2002 (Rel. 41, I
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h factor; Multigene family.
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                          PubMed=8637916;
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INTERCHAIN (BY SIMILARITY).
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.8e-64;
       novel
                                                                                                                                                                               Silins G.,
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                                                                               characterization
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       growth
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                                                                                       for vascular
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                                                                                                                                                                                                                                      Murinae;
       factor
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Best Local Similarity
Matches 121; Conser
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EMBL; U43837;
EMBL; U52820;
EMBL; U48800;
HSSP; P15692;
                                                                                                       VARSPLIC
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                          entities requires a license agreement (See or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   conduction defect.";
Circulation 104:358-364(2001).
-!- FUNCTION: Growth factor for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=21349816; PubMed=11457758; Aase K., von Euler G., Li X., Pont Olofsson B., Gebre-Medhin S., Pekn
                                                                                                                                                                                                                                                                          Mitogen;
                                                                                                                                                                                                                                                                                                                                                         MGD; MGI:106199;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified
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Eriksson U.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                endothelial cells.";
                                                                                                                                                                                                                                                               Alternative
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\vdash
                      H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION: Secreted but remains associated to cells or to the extracellular matrix unless released by heparin.

ALTERNATIVE PRODUCTS: At least 2 isoforms; VEGF-B186 (shown here) and VEGF-B167; are produced by alternative splicing.

TISSUE SPECIFICITY: Abundantly expressed in heart, brain, kidney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or for angiogenesis in adults. 
 {\tt SUBUNIT: Homodimer; disulfide-linked.} Can also with vegf.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          European
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and skeletal muscle.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    development of the cardiovascular system either
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               heparin and neuropilin-1 whereas the binding to neuropi
VEGF-B186 is regulated by proteolysis. Vegf-b seems to
for normal heart function in adult but is not required
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUNCTION: Growth factor for endothelial cells.
           MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EMEuropean Bioinformatics Institute. There are no restroy by non-profit institutions as long as its content
MSPLLRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL
                                                                                                                                                                                                                                                                        PS00249; PDGF_1; 1.
PS50278; PDGF_2; 1.
Growth factor; Glyc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VEGF-B186 is O-glycosylated.
LARITY: BELONGS TO THE PDGF/V
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207
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                                                                                                                                                                                                                                                               splicing;
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1 POTENTIAL.
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Pred.
5; Mis
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MISSING (IN ISOFORM VEGF-B167).
4817A5E96F6960C2 CRC64;
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BY SIMILARITY.
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
RVAIPHHRPQPRSVPGWDSTPGASSPADIIHPTPAPGSSAR
LAPSAVNALTP -> SPRILCPPCTQRRQRPDPRTCRCRCR
                                                                                                                                                                                                                         VASCULAR ENDOTHELIAL BY SIMILARITY.
                                                                                                                                          RRRFLHCQGRGLELNPDTCRCRKPRK (IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ponten A., Pekny M., F
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PDGF/VEGF FAMILY
                                             e 644; DI
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ismatches
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Alitalo
                                                        DB 1;
.3e-59;
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Betsholtz
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                                                                                                                                                                                                                                                                                               Well J. Eschenhagen T., Mittmann C., Scholz H.;
Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
--- FUNCTION: Growth factor for endothelial cells. VEGF-B167 bind heparin and neuropillin-1 whereas the binding to neuropillin-1 VEGF-B186 is regulated by proteolysis (By similarity).
--- SUBURIT: Homodimer; disulfide-linked. Can also form heterodim with vegf (By similarity).
--- SUBCELLULAR LOCATION: Secreted but remains associated to cell
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035485; (
                                           DISULFID DISULFID
                          DISULFID VARSPLIC
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PROSITE;
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HSSP; P15692; 1VPP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                 use
                                                                                                                                                                                                                                                                                                                                                                             TISSUE-Heart
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01-MAR-2002 (Rel. 41, Last annotation
CONFLICT
                                                             DISULFID
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VEGFB OR VRF.
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                                                                                                                                                                                                              European Bioinformatics Institute. The by non-profit institutions as long
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SM00141; PDGF; 1.
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PS50278; PDGF_2; 1.
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requires a license
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Rodentia;
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INTERCHAIN (BY SIMILARITY).
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Sciurognathi; Muridae;
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CONFLICT
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01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation updat
Vascular endothelial growth factor A precur
permeability factor) (VPF).
                                                                                                                                                                                                                                                                                                                                                                                                                                         Miura N., Misumi K., Kawahara K., Nakashima M., Fuk
Kawahbata H., Uto N., Oka T., Maruyama I., Sakamoto
"Cloning of cDNA and high-level expression of equit
endotherial growth factor (VEGF).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Equus caballus (Horse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
                                                               InterPro; IPR000072; PDGF Pfam; PF00341; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases -i- FUNCTION: Growth factor active in angiogenesis, and
                               ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
                                                                                                   EMBL; AB053350; BAB20890.1;
                                                                                                                                   or send an
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                                                                                                                                                                 use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                     the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VEGF OR VEGFA.
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                                                                                                                                                                                                                                                                                                      with PIGF (By similarity).
SUBCELLULAR LOCATION: Secret
to the extracellular matrix
                                                                                                                                                                                                                                                                                                                                                      cell growth. Induces endothelial proliferation permeability (By similarity). SUBUNIT: Homodimer; disulfide-linked. Also four
                                                                                                                                                                                                                                                                      SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                      similarity).
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PS00249; PDGF_1; PS50278; PDGF_2;
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P49151; Q9GL52;
01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor A precursor (VEGF-A) (Vascular permeability factor) (VPF).
                                                              entities requires a license agreement (Some send an email to license@isb-sib.ch).
                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the El the European Bioinformatics Institute. There are no resti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rck cloning of gene.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIG.
                                                                                                       use by non-profit institutions as long modified and this statement is not removed.
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Lee T., Canty J.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            endothelial growth factor."
Biochim. Biophys. Acta 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=95143284; PubMed=7841203; Sharma H.S., Tang Z.H., Gho B.C.H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sus scrofa (Pig).
Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                                                                                                                                                                                                          Similarity).
SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                        FUNCTION: Growth factor active in angiogenesis, vasculogenesis and endothelial cell growth. It induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis, and induces permeabilization of blood vessels. It binds to the VEGFRI/Filt-1 and VEGFR2/Kdr receptors and to heparan sulfate and
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SUBCELLULAR LOCATION: Secreted
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SUBUNIT: Homodimer; disulfide-linked. Also found
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swART; SM00141; PDGF; 1;
swART; SM0141; PDGF_1; 1.
pROSITE; PS00249; PDGF_2; 1.
pROSITE; PS50278; PDGF_2; 1.
mitogen; Angiogenesis; Growth factor;
mitogen; Angiogenesis; Growth factor;
                                                                                                                                                     Submitted (MAY-1998)
                                                                                                                                                                                     TISSUE=Decidua,
                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                    NCBI_TaxID=10036
                                                                                                                                                                                                                                          Mammalia;
                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
                                                                                                                                                                                                                                                               Mesocricetus auratus (Golden hamster).
                                                                                                                                                                                                                                                                        VEGF OR VEGFA.
                                                                                                                                                                                                                                                                                   permeability factor) (VPF).
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Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                                                                                                                      VEGA_MESAU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP; P15692; 1VGH.
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                              Similarity).
SIMILARITY: BELONGS TO
                                                                                    heparin (By similarity).
SUBUNIT: Homodimer; disulfide-linked. Also
                                                              with PIGF (By similarity).
SUBCELLULAR LOCATION: Secr
                                                                                                       FUNCTION: Growth factor active in angiogenesis, vasculogenesis endothelial cell growth. It induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis, and induces permeabilization of blood vessels. It binds to the VEGFRI/Flt-1 and VEGFR2/Kdr receptors and to heparan sulfate an
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copyright.
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                               THE PDGF/VEGF FAMILY OF GROWTH FACTORS
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Pred. No. 7.4e
22; Mismatches
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC...) (POTI
T -> A (IN REF. 2).
; 04D40B8D7913047F CRC64;
                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Cricetinae;
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d by heparin
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                                                                                     found as heterodimer
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Best Local :
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SIGNAL 1 26 BY SIMILARITY.

CHAIN 27 190 VASCULAR ENDOTHELIAL GROUSULFID 51 93 BY SIMILARITY.

DISULFID 86 129 BY SIMILARITY.

DISULFID 86 129 BY SIMILARITY.

DISULFID 86 129 BY SIMILARITY.

DISULFID 86 129 BY SIMILARITY.

CARBOHYD 100 100 N-LINKED (GLCNAC. . .)

SEQUENCE 190 AA; 22276 MW; F00C5A8EA79A465F CRC66
                                                                                                                                                                                                                                                                  VEGA_RAT STANDARD; PRT; 214 AA. P16612; Q9QXG7; Q9QXG6; Q9JKX7; PLAUG-1990 (Rel. 15, Created) 01-MAR-2002 (Rel. 41, Last sequence update) 01-MAR-2002 (Rel. 41, Last annotation update) Vascular endothelial growth factor A precursor permeability factor) (VPF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             proDom; pD001629; pDGF; 1.
SMART; SM00141; pDGF; 1.
pROSITE; pS00249; pDGF_1; 1.
pROSITE; pS50278; pDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
           "Developmental expression of (VEGF-A) splicing variants, masseter muscle.";
                                                                                                                                             Conn G., Bayn
Palisi T.M.,
                                                                                                                                                                       SEQUENCE FROM N.A. (ISOFORM VEGF-A164), AND SEQUENCE MEDLINE=90207249; PubMed=2320579;
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                       Ishii H., Arakawa T., Okayama M., Oota "Developmental expression of vascular e (VEGF-A) splicing variants, VEGF-A188,
                                                                                                                                                                                                                             Mammalia; Eutheria;
                                                                                                                                                                                                                                            Eukaryota; Metazoa;
                                                                                                                                                                                                                                                        Rattus norvegicus (Rat).
                                                                                                     Palisi T.M., Hope D.A., Thomas K.A.;
"Amino acid and cDNA sequences of a vascular endothelial
that is homologous to platelet-derived growth factor.";
Proc. Natl. Acad. Sci. U.S.A. 87:2628-2633(1990).
                                                                                                                                                                                                                 NCBI_TaxID=10116
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                                                                             FROM N.A. (ISOFORMS VEGF-A188; VEGF-A164; VEGF-A144
                                                                                                                                                          Bayne M.L.,
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                                                                                                                                                                                                                             Chordata;
Rodentia;
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44.3%;
                                                                                                                                                           Soderman D.D., Kwok P.W.,
the EMBL/GenBank/DDBJ databases
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Pred. No. 9.
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POT
; F00C5A8EA79A465F CRC64;
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r endothelial
8, VEGF-A164,
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                   I growth factor-A and VEGF-
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Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
Mitogen; Angiogenesis; Growth
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DiSalvo J., Bayne M.L., Conn G., Kwok P.W., Trivedi P.G., Soderman D.D., Palisi T.M., Sullivan K.A., Thomas K.A.; "Purification and characterization of a naturally occurring vascular
                                                                                                                                                                                                          Heparin-binding;
SIGNAL 1
                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; M32167; AAA41211.1; -. EMBL; AF215725; AAF19211.1; EMBL; AF215726; AAF19212.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=95221439;
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SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                  PIR; A35987; A35987.
HSSP; P15692; 1VPP.
                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000072;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      splicing.
TISSUE SPECIFICITY: Expressed in the pituitary, in brain, in particularly in supraoptic and paraventricular nuclei and the choroid plexus. Also found abundantly in the corpus luteum of the ovary and in kidney glomeruli.
SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF-A164 is more basic, has heparin-binding properties and, although a signicant proportion remains cell-associated, most is freely secreted. VEGF-A188 is very basic; it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin (By similarity).
ALTERNATIVE PRODUCTS: At least 4 isoforms; VEGF-A188 (shown here), VEGF-A164, VEGF-A144 and VEGF-A120; are produced by alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             heparin (By similarity).
SUBUNIT: Homodimer; disulfide-linked. Also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               with PIGF (By similarity). SUBCELLULAR LOCATION: VEGF-A120 is acidic and freely
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FUNCTION: Growth factor active in angiogenesis, vasculogenesis endothelial cell growth. It induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis, and induces permeabilization of blood vessels. It binds to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VEGFR1/Flt-1 and VEGFR2/Kdr receptors and to
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K -> N (IN ISOFORM VEGF-A164).

MISSING (IN ISOFORM VEGF-A120).

MISSING (IN ISOFORM VEGF-A144).

V -> A (IN REF. 2; AAF19212).

W; 60FBB876F5304946 CRC64;
                                                                                                          VASCULAR ENDOTHELIAL GROWTH FACTOR BY SIMILARITY.
BY SIMILARITY.
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INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
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Query Match Best Local Similarity

37.5%; 43.8%;

Score 269.5; DB 1 Pred. No. 1.1e-20;

DB 1;

Length 214;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Čhordata; (Mammalia; Eutheria; Carnivora; NCBI_TaxID=9615;
                                                                            Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                              use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Vascular endothelial growth factor bearing dogs.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9MYV3; Q9XSF5; Q9XSF4; Q9XSF3;
01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jingjing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Heart;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ballmer-Hoter K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scheidegger P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-20125516;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Canis familiaris (Dog).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vascular endothelial growth factor A precursor (VEGF-A) (Vascular permeability factor) (VPF).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALTERNATIVE PRODUCTS: At least 3 isoforms; VEGF188 (shown here VEGF182 and VEGF164; are produced by alternative splicing. SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gjing L., Roque R.S.;
mitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
FUNCTION: Growth factor active in anglogenesis, vasculogenesis and
                                                                                                                                                                                                                                                                                                                                                                   European
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           heparin (By similarity).
SUBUNIT: Homodimer; disulfide-linked. Also found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBCELLULAR LOCATION: Secret to the extracellular matrix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  with PIGF (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               endothelial cell growth. It induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis, induces permeabilization of blood vessels. It binds to the VEGFR1/Fit-1 and VEGFR2/Kdr receptors and to heparan sulfat
                                                                                                                                                                                                                                                                                                                                                                                         SWISS-PROT entry is copyright. It is produced through en the Swiss Institute of Bioinformatics and the EW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FKPSCVPLMRCAGCCNDEALECVPTSESNVTMQIMRIKPHQSQHIGEMSFLQHSRCECRP
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                                                                                                                             AJ133758; CAB82426.1;
AF133250; AAD29684.1;
AF133249; AAD29683.1;
AF133248; AAD29682.1;
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                              SM00141;
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                                                    PD001629;
                                                                                                     IPR000072;
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                                                                                                                                                                                                                                                                                                                                                                   Bioinformatics Institute.
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PDGF;
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                     éF; 1.
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; Fissipedia; Canidae;
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Matches 55
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CONFLICT
SEQUENCE
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VEGF OR VEGFA.

Mis mind
                                         Shima D.T., Kuroki M., Deutsch U., Ng Y., Adamis A.P., D'Amore "The mouse gene for vascular endothelial growth factor. Genomic structure, definition of the transcriptional unit, and characterization of transcriptional and post-transcriptional
                                                                                                                                                                                                                                                              differentiation
                                                                                                                                                                                                                                                                                    MEDLINE=92355593; PubMed=1644816; Claffey K.P., Wilkison W.O., Spiegelman "Vascular endothelial growth factor Reg
                                                                                                                                                                                                                                                                                                                                                                                                                     angiogenesis and endothelial cell differentiation.";
Development 114:521-532(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-APR-1993 (Rel. 25,
01-OCT-1996 (Rel. 34,
01-MAR-2002 (Rel. 41,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q00731;
01-APR-1993
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                                                                                                                                                      SEQUENCE OF 1-3 FROM N.A. MEDLINE=96216498; PubMed=
                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. (ISOFORM VEGF-1).
MEDLINE=92355593; PubMed=1644816;
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55; Conservative
                                                                                                                                                                                                                                   tiation and activated second Chem. 267:16317-16322(1992).
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PS50278;
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PS50278; PDGF_2; 1.
Angiogenesis; Growth
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45.1%;
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endothelial growth factor
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTENTIAL).
K -> N (IN ISOFORM VEGF-164).
MISSING (IN ISOFORM VEGF-164).
MISSING (IN ISOFORM VEGF-182).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MGD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the El the European Bioinformatics Institute. There are no rest:
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                                                                                                                                                                                                                                                                                                                                                                                Mitogen;
                                                                                                                                                                                                                                                                                                                                                                                              SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                         ProDom;
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InterPro; IPR000072; PD
Pfam; PF00341; PDGF; 1.
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TISSUE SPECIFICITY: In developing embryos, expressed mainly in techoroid plexus, paraventricular neuroepithelium, placenta and kidney glomeruli. Also found in bronchial epithelium, addrenal gland and in seminiferous tubules of testis. High expression of VEGF continues in kidney glomeruli and choroid plexus in adults. DOMAIN: VEGF-3 contains a basic insert which acts as a cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       retention signal.
SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           with PIGF (By similarity).
SUBCELLULAR LOCATION: VEGF-1 and VEGF-2 are secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     remains cell-surface associated unless released k
ALTERNATIVE PRODUCTS: 3 isoforms; VEGF-3/VEGF188
VEGF-1/VEGF164 and VEGF-2/VEGF120; are produced k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        heparin (By similarity).
SUBUNIT: Homodimer; disulfide-linked. Also found as heterodimer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: Growth factor active in angiogenesis, vasculogenesis a endothelial cell growth. It induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis, and induces permeabilization of blood vessels. It binds to the VEGFR1/Fit-1 and VEGFR2/Kdr receptors and to heparan sulfate and
                                                                    LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ
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$38083;
$38100;
$95200;
$041383;
                     LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP
FKPSCVPLMRCAGCCNDEALECVPTSESNITMQIMRIKPHQSQHIGEMSFLQHSRCECRP
                                                       LALLLYLHHAKWSQAAPTTEGEQKSHEVIKFMDVYQRSYCRPIETLVDIFQEYPDEIEYI
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                                                                                                                                                                                                                                                                                                                                                                                                                                      PD001629; PDGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               email to license@isb-sib.ch).
                                                                                                                Conservative
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velinked (IN ISOFORM VEGF-1).
MISSING (IN ISOFORM VEGF-2).
MISSING (IN ISOFORM VEGF-2).
GE -> ER (IN REF. 2).
                                                                                                             23;
                                                                                                             Score 267.5;
Pred. No. 1.7e
23; Mismatches
                                                                                                                                                                                    B5540B51E4BB6E17
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ies 47;
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Tischer E., Gospodarowicz D., Mitchell R.,
Lau K., Crisp T., Fiddes J.C., Abraham J.A.
"Vascular endothelial growth factor: a new
derived growth factor gene family.";
Biochem. Biochem. Parameters
                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-APR-1990 (Rel. 14, Created)
01-APR-1990 (Rel. 14, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
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-i- FUNCTION: Growth factor active in angiogenesis, vasculog endothelial cell growth. It induces endothelial cell prowth. It induces endothelial cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Pituitary follicular cells secrete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A., AND SEQUENCE MEDLINE=90069608; PubMed=2479986; Leung D.W., Cachianes G., Kuang V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   permeability factor) (VPF).
VEGF OR VEGFA.
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BL; M32976; AAA30502.1;
BL; M31836; AAA30805.1;
BL; M3375; AAA30805.1;
R; A33325; A33255.
R; A33787; A33787.
R; B40080; B40080.
                                                                                                                                                                                                                                                                                                                                                                                                          with PlGF (By similarity).
SUBCELLULAR LOCATION: Secreted but
to the extracellular matrix unless
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                                                                                                                                                                                                                                                                                                                                                                 Similarity)
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SUBUNIT: Homodimer; disulfide-linked. Also found as heterodimer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proliferation, promotes cell migration, inhibits apoptosis, and induces permeabilization of blood vessels. It binds to the VEGFR1/Flt-1 and VEGFR2/Kdr receptors and to heparan sulfate and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KKKDSAVKPD
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                                                                                                                                                     email to license@isb-sib.ch).
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Cetartiodactyla; Ruminantia; Pecora;
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cora; Bovoidea;
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VEGA_HUMAN
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Matches 55
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Fiddes J.C., Abr
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                                                                                                                                                                                                                                      VEGA_HUMAN STANDARD; PRT; 232 AA. P15692; Q16889; O60720; O75875; Q9UL23; Q9UH58; O1-APR-1990 (Rel. 14, Created)
O1-MAR-2002 (Rel. 41, Last sequence update)
O1-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor A precursor permeability factor) (VPF).
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PROSITE; PS50278; PDGF_2; 1.
Mitogen; Anglogenesis; Growt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProDom; PD001629; PDGI SMART; SM00141; PDGF;
         Tischer E., Mitchell R., Hartman T., Fiddes J.C., Abraham J.A.;
                                                                                  Keck P.J., Hauser
Connolly D.T.;
                                                                                                                                              "Vascular endothelial
                            SEQUENCE FROM N.A. MEDLINE=91268072;
                                                                                                    SEQUENCE FROM N.A. MEDLINE-90069609; I
                                                                                                                              Science
                                                        Science
                                                                        "Vascular permeability
                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORMS VEGF189 AND VEGF165). MEDLINE-90069608; PubMed-2479986;
                                                                                                                                                                                                                      Homo sapiens (Human)
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PDGF; 1.
                           PubMed=1711045;
                                                                                          S.D.,
                                                                                                   (ISOFORM VEGF189), AND Pubmed=2479987;
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                                                                                                                                               G., Kuang W.-G
growth factor
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTI
MISSING (IN ISOFORM BETA).
R -> K (IN ISOFORM BETA).
R -> K (IN ISOFORM BETA).
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BY SIMILARITY.
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  endothelial
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Pred. No. 1.9e-20;
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                   Silva M.,
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a secreted
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growth
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                                                                                         Warren T., Feder J.,
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                   Gospodarowicz D.,
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J. Biol.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. (ISOFORM VEGF145).
MEDLINE=97207275; PubMed=9054410;
Poltorak Z., Cohen T., Sivan R., Kand,
Keshet E., Neufeld G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mol.
                                   SEQUENCE FROM N.A. (ISOFORM Sato J.D., Whitney R.G.;
                                                                         and receptor mRNA expression identification of VEGF148 mI Clin. Sci. 97:303-312(1999).
                                                                                                                                    TISSUE=Renal glomerulus; MEDLINE=99394945; PubMed Whittle C.J., Gillespie
                                                                                                                                                                                                                          TISSUE=Hemangioendothelioma;
Murata H., Fukushima J., Hat
"Human cDNA for the vascular
                                                                                                                                                                                                                                                                                        Jingjing L., Xue Y., Agarwal N., Roque R.S.; "Human Muller cells express VEGF183, a novel sp vascular endothelial growth factor."; Invest. Ophthalmol. Vis. Sci. 40:752-759(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=98119755;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lei J., Jiang A., Pel D.;
"Identification and characterization of a
vascular endothelial growth factor: VEGF18
Biochim. Biophys. Acta 1443:400-406(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=99096474;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "VEGF145, a secreted vascular endothelial binds to extracellular matrix."; J. Biol. Chem. 272:7151-7158(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "AIDS-associated Kaposi's sarcoma cells endothelial growth factor.";
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MEDLINE=92231879; PubMed=1567395;
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of RNA.";
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                          "Human
                                                                                               "Heterogeneous vascular endothelial growth
and receptor mRNA expression in human glome
                                                                                                                            Harper S.
                                                                                                                                                                            SEQUENCE FROM N.A. (ISOFORM
                                                                                                                                                                                                     Submitted
                                                                                                                                                                                                                 VEGF165
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                          cDNA for vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 forms are encoded through alternative exon . Chem. 266:11947-11954(1991).
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                                                                                     VEGF148 mRNA,
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lespie K.M., Harr
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                        factor isoform VEGF121.";
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                                                                                                                                         P.W.,
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                                                                                                                                                                                                                              isoform
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                                                                                                                isoform mRNA
                                                                                      variant.";
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SEQUENCE FROM N.A.

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Muller Y.A., Christinger H.W., Keyt B.A., de Vos A.M.; "The crystal structure of vascular endothelial growth factor (VEGF) refined to 1.93-A resolution: multiple copy flexibility and recepto binding.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=93145946; PubMed=7678805; Fiebich B.L., Jaeger B., Schoellmann C., Kochs G., Marme D., Hug H., Weich H.A.; "Synthesis and assembly of functionally endothelial growth factor homodimers in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Connolly D.T., Olander J.V., Heuvelman D., Nels Siegel N., Haymore B.L., Leimgruber R., Feder J "Human vascular permeability factor. Isolation J. Biol. Chem. 264:20017-20024(1989).
                                                                                                  "Vascular endothelial growth factor induces proliferation of endothelial cells via the FASEB J. 15:1667-1669(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            X-RAY CRITICAL PU
MEDLINE=97352774; PU
Mailler Y.A., Li B.,
                                                                                                                                                                                                                                                                                                     "1H, 13C, and 15N backbone assi-
receptor-binding domain of vascu
Protein Sci. 6:2250-2260(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                          "Crystal structure of peptide.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-98035455;
Muller Y.A., Chris
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                                                                                                                                             Murphy J.F.,
                                                                                                                                                           MEDLINE=21320570;
                                                                                                                                                                                                                        "Solution structure of the heparin-binding
                                                                                                                                                                                                                                      Fairbrother W.J.,
Starovasnik M.A.;
                                                                                                                                                                                                                                                               MEDLINE-98298440;
                                                                                                                                                                                                                                                                                                                                           Fairbrother W.J., Champe M.A.,
Starovasnik M.A.;
                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=97477915;
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                                                                                                                                                                                                                                                                                                                                                                                                               Biochemistry
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=99119204;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          X-RAY CRYSTALLOGRAPHY (1.9 ANGSTROMS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Structure
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heparin.
SUBUNIT:
with PIGF
         FUNCTION: Growth factor active in angiogenesis, vasculogenesis a endothelial cell growth. It induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis, and induces permeabilization of blood vessels. It binds to the VEGFR1/Fit-1 and VEGFR2/Kdr receptors and to heparan sulfate and heparin. Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. SUBUNIT: Homodimer; disulfide-linked. Also found as heterodimer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of the kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Christinger H.W.,
W.J., Keenan C.J.,
                                                                                                                                           D570; PubMed=11427521;
Fitzgerald D.J.;
                                                                                                                                                                                                                                                                                                                                                                                                            37:17765-17772(1998).
  (Ву
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                                                                                                                                                                                                                                                  Champe
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vascular en
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Meng G., de Vos
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VEGF-2 receptor.";
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cells
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and a receptor-blocking
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  growth factor.";
                                                                                                                                                                                                                                                  Keyt B.A.,
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Best Local
                                                                        MEDITINE-9711/958; PubMed-8958842;
MEDITINE-9711/958; PubMed-8958842;
Medmar D.A., Dai Y., Li J., Charnock-Jones D.S., Smith S.K.,
Reynolds L.P., Moor R.M.;
"Characterization and expression of vascular endothelial growth
factor (VEGF) in the ovine corpus luteum.";
J. Reprod. Fertil. 108:157-165(1996).

1. Reprod. Fertil. 108:157-165(1996).
1. FUNCTION: Growth factor active in angiogenesis, vasculogenesis a
endothelial cell growth. It induces endothelial cell
proliferation, promotes cell migration, inhibits apoptosis, and
induces permeabilization of blood vessels. It binds to the
VEGFRI/Fit-1 and VEGFR2/Kdr receptors and to heparan sulfate and
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01-OCT-1996 (Rel. 34, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor A precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VEGA_SHEEP
P50412;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This
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                                                                                                                                                                                                                                                                  TISSUE=Kidney
                                                                                                                                                                                                                                                                                SEQUENCE FROM
                                                                                                                                                                                                                                                                                                             Bovidae; Caprinae;
NCBI_TaxID=9940;
                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria;
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            heparin (By similarity).
SUBUNIT: Homodiner; disulfide-linked.
with PIGF (By similarity).
SIMILARITY: BELONGS TO THE PDGF/VEGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INDUCTION: Regulated by growth factors, cytokines, gonadotrop: nitric oxide, hypoxia, hypoglycemia and oncogenic mutations. SIMILARITY: BELONGS TO THE PDEF/VPGEF FAMILY OF GROWTH FACTORS DATABASE: NAME-R&D Systems' cytokine mini-reviews: VEGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin.

ALTERNATIVE PRODUCTS: 7 isoforms; VEGF206 (shown here), VEGF189, VEGF183, VEGF165/VEGF, VEGF148, VEGF145 and VEGF121; may be produced by alternative splicing.

TISSUE SPECIFICITY: The VEGF189, VEGF-165 and VEGF-121 isoforms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 although a signicant proportion remains cell-associated, most freely secreted. VEGF189 is very basic; it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix although it.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBCELLULAR LOCATION: VEGF121 is acidic and freely VEGF165 is more basic, has heparin-binding properti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WWW="http://www.rndsystems.com/asp/g_sitebuilder.asp?bodyId=230"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           are widely expressed, whereas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK
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Cetartiodactyla;
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43.9%;
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Pred. No. 4.2e-20;
1; Mismatches 44
                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebra
actyla; Ruminantia;
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and
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VEGF-145
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GROWTH FACTORS

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s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way in the swing and the second content is in the same of the second content is in the second content in the second content is in the second content in the second content is in the second content in the second content is second content in the second content in the second content is second content in the second content in the second content is second content in the second content in the second content is second content in the second

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                                                                                                                                        Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                       P26617:
01-AUG-1992 (Rel. 23, Created)
01-AUG-1992 (Rel. 23, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor A (VEGF-VEGF OR VEGFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SMART; SM00141; PDGF; 1:
PROSITE; PS00249; PDGF; 1:
PROSITE; PS50278; PDGF_2; 1:
Mitogen; Angiogenesis; Growth factor; Glycoprotein;
Heparin-binding; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                          Berse
                                                                                                  TISSUE-Bile duct;
                                                                                                             SEQUENCE FROM N.A.
                                                                                                                               NCBI_TaxID=10141;
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nilarity 44.3%;
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VASCULAR ENDOTHELIAL GROWTH F.
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INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTEN
M; 4E792CB557F91760 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                     23;
                                                                                                                                                                                                                                                                                                                                                                                                                              Score 263.5; DB Pred. No. 3e-20;
                                                                                                                                         Craniata; Vertebrata; Eut
Hystricognathi; Caviidae;
                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                          ion update)
A (VEGF-A)
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YEACHICK STANDAKU,

VEGA_CHICK STANDAKU,

C P52582; 091420;

T 01-OCT-1996 (Rel. 34, Created)

T 10-JUL-1998 (Rel. 36, Last sequence update)

JT 15-JUL-1998 (Rel. 36, Last sequence update)

JT 01-MAR-2002 (Rel. 41, Last annotation update)

DE Vascular endothelial growth factor A precursor (VF

DE permeability factor) (VPF).

GN VEGF OR VEGFA. (Original Control of Coturnix coturnix japonica (Japanese quail).

OS Coturnix coturnix japonica (Japanese quail).

OS Coturnix coturnix japonica (Japanese puail).
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VEGA_CHICK
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Best Local S
Matches 49

      SMART;
      SMO0141;
      PDGF;
      1.

      PROSITE;
      PS00249;
      PDGF;
      1.

      PROSITE;
      PS500278;
      PDGF;
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      PROSITE;
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      Mitogen;
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      DISULFID
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      IN

      CARBOHYD
      74
      74
      74

      SEQUENCE
      164
      AA;
      19330
      MW;

"Overexpression of vascular endothelial growth factor in the embryo induces hypervascularization and increased vascular permeability without alterations of embryonic pattern formabev. Biol. 171:399-414(1995).
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                                                                                                                                                                                  SPECIES=C.c.japonica; TISSUE=Embryo; MEDLINE=96005007; PubMed=7556923;
                                                                                                                                                                                                                                                                                                         Submitted
                                                                                                                                                                                                                                                                                                                                                               SPECIES=Chicken;
Takahashi T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR000072;
Pfam; PF00341; PDGF;
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                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                      embryonic ventricular myocytes VEGF.";
ted (FEB-1998) to the EMBL/GenBank/DDBJ
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Craniata; Vertebrata; Euteleostomi;
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growth factor in the
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"Vascular endothelial growth factor (VEGF) and VEGF receptor 2

(flk-1) are expressed during vasculogenesis and vascular

differentiation in the quail embryo.";

Dev. Biol. 169:699-712(1995).

-i- FUNCTION: Growth factor active in angiogenesis, vasculogenesis an

endothelial cell growth. It induces endothelial cell

proliferation, promotes cell migration, inhibits apoptosis, and
induces permeabilization of blood vessels. It binds to the

VEGFRI/Fit-1 and VEGFR2/Kdr receptors and to heparan sulfate and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Heparin-binding; SIGNAL 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProDom; pD001629; pDGF; 1.
SMART; SM00141; pDGF; 1.
PROSITE; pS00249; pDGF_1; 1.
PROSITE; pS50278; pDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AB011078; BAA24925.1; -.
EMBL; S79680; AAB33371.1; -.
HSSP; P15692; 1VGH.
InterPro; IPR000072; PDGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHAIN
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DEVELOPMENTAL STAGE: VEGF166 is expressed early at day 1 and is upgraded during gastrulation. Expression of VEGF190 is detectable only from day 2.

DOMAIN: VEGF190 contains a basic insert which acts as a cell of the contains of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts as a cell of the contains a basic insert which acts are contained to the contains a basic insert which acts are contained to the contains a basic insert which acts are contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained to the contained
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     heparin (By similarity).
SUBUNIT: Homodimer; disulfide-linked. Also found as heterodimer with PLGF (By similarity).
ALTERNATIVE PRODUCTS: At least 3 isoforms; VEGF190 (shown here),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         retention signal.
SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF
                                                                                                                                                               LAALLQLAPAQAPVSQPDAPGHQRK---VVSWIDVYTRATCQPREVVVPLTVELMGTVAK
                                                QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR
IFRPSCVPLMRCAGCCGDEGLECVPVDVYNVTMEIARIKPHQSQHIAHMSFLQHSKCDCR
                                                                                                                        LAALLYLQSAELSKAAPALGDGERKPNEVIKFLEVYERSFCRTIETLVDIFQEYPDEVEY
                                                                                                                                                                                                                                              Similarity 40.7
50; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anglogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                          216
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INTERCHAIN (BY SIMILARITY).

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Pred. No. 3e-17;
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                                                                                                                                                                                                                                                 Mismatches
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RESULT 15
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proDom; pD001629; pDGF; 1.
SMART; SM00141; pDGF; 1.
SMOSITE; pS00249; pDGF=1; 1.
pROSITE; pS50278; pDGF=2; 1.
pROSITE; pS50278; pDGF=2; 1.
Mitogen; Growth factor; Glycop
SIGNAL 1 20
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SIGNAL 1 20
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Orf virus (strain NZ2) (OV
Viruses; dsDNA viruses, no
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01-OCT-1996 (Rel. 34, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Vascular endothelial growth factor homolog pr
                                                                                                                                                                                                                                                                                                                                      EMBL; S67520; AAB29220.2;
HSSP; P15692; 1VPP.
InterPro; IPR000072; PDGF.
                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                          modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- FUNCTION: INDUCES ENDOTHELIAL PROLIFERATION.
-!- SUBUNIT: HOMODIMER; DISULFIDE-LINKED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Parapoxvirus.
                                                                                                                                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute. The European Bioinformatics Institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 poxvirus orf virus.";
J. Virol. 68:84-92(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tyttle D.J., Fraser K.M., Fleming "Homologs of vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE=94076465;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P52584;
                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10259;
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 SMELLGASGSGSNGMQRLSFVEHKKCDCRPR
                                             WSEVLKGSECKPRPIVVPVSETHPELTSQRFNPPCVTLMRCGGCCNDESLECVPTEEVNV
                                                                                          . Similarity
36; Conser
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133 AA;
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RNA stage; Poxviridae; Chordopoxvirinae;
                                                                                                                                                          HOMOLOG.

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INTERCHAIN (BY SIMILARITY).

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VASCULAR ENDOTHELIAL
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                                                                                                                                                   917C0F6883030C39 CRC64;
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PLGF_BOVIN STAN
Q9XS47;
Q1-MAR-2002 (Rel. 4
01-MAR-2002 (Rel. 4
01-MAR-2002 (Rel. 4
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CARBOHYD
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SEQUENCE
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"Structure and expression of bovine VEGF family.";
Submitted (MAY-1997) to the EMEL/GenBank/DBJ databases.

-I- FUNCTION: Growth factor active in anglogenesis, and endothelial cell growth, stimulating their proliferation and migration. It binds to receptor VEGFR-1/FLT1 (By similarity).

-I- SUBUNIT: Antiparallel homodimer; disulfide-linked. Also found as heterodimer with VEGF/VEGF-A (By similarity).

-I- SUBCELLULAR LOCATION: Secreted (By similarity).

-I- SUBCELLULAR LOCATION: Secreted (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Ch
Mammalia; Eutheria; Ce
Boyidae; Boyinae; Bos.
                                                                                                                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                                                                                    Mitogen;
                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                        SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                           HSSP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Placenta growth PGF OR PLGF.
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                                                                         QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR
                                                                                                   QLLTGLVLPAVPTTQWALSPGNISSEVEVVPFQQVWSRSYCRPVERLVDIVSEYPSEMEH
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m; PD001629; PDGF; 1.
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41, Last sequence up
41, Last annotation
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                                                                                                                                                                                                                                                                                                                                             Glycoprotein; Signal.
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INTRACHAIN (BY SIMILARITY).
INTRACHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
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N-LINKED (GLCNAC. . . ) (POTENTIAL).
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PGF OR PIGF.
Homo sapiens (Human).
Homo sapiens (Human).
Homo sapiens (Human).
Homo sapiens (Human).
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                                                                                                                                                                                                                                                                                     CHARACTERIZATION, AND SEQUENCE OF MEDLINE=95014370; PubMed=7929268;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Sequencing
Submitted ()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Maglione D., Guerriero V., Viglietto G., Ferraro M.G., Aprelikova Alitalo K., del Vecchio S., Lei K.-J., Chou J.Y., Persico M.G.; "Two alternative mRNAs coding for the angiogenic factor, placenta growth factor (PIGF), are transcribed from a single gene of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIGF_HUMAN STANDARD; PRT; 221 AA P49763; Q9BV78; Q9Y6S8; Q07101; Q1-CQT-1996 (Rel. 34, Created) Q1-MAR-2002 (Rel. 41, Last sequence update) Q1-MAR-2002 (Rel. 41, Last annotation update) Placenta growth factor precursor (PIGF). PGF OR PIGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cao Y., Ji W.-R., Qi P., Rosin A., Cao Y.; "Placenta growth factor: identification and characterization novel isoform generated by RNA alternative splicing."; Biochem. Biophys. Res. Commun. 235:493-498(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hauser S.D., Weich H.A.;
"A heparin-binding form of placenta expressed in human umbilical vein er
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Maglione D., Guerriero V., Viglietto G., De "Isolation of a human placenta cDNA coding the vascular permeability factor.";
                                                                                                                                                                               factor bioactivity, in vitro and in vivo,
to Flt-1 but not to Flk-1/KDR.";
                                                                                                                                                                                                                                                                                                                                                                  Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. (ISOFORM PLGF-1).
ROWEN L., Madan A., Qin S., Abbasi N.,
                                                                                                                                                                                                                                                                                                                                                                                                               rissue-Muscle, and
                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hood L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Loretz C., Lasky S., Madan A., Prescott
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=97350807; PubMed=9207183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-Placenta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chromosome 14."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=93205407; PubMed=7681160;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                  (-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of human chromosome 14.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9:259-268(1993).
                                                                                                                                                       269:25646-25654(1994).
                  PubMed=11069911;
D.D., Swaminathan G.J.,
M.G., Acharya K.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                  Placenta;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ISOFORM PLGF-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                       (ISOFORM PLGF-2).
                                                                                                                                                                                                                                                                                                                                                               the EMBL/GenBank/DDBJ
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                                                                                                                                                                                                                                                                                                               OF 19-24
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                                                                                                  (ISOFORM
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growth
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                                               Maglione D.,
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                                                     Battisti M.,
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Matches 43
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                                                                                                                                                         CARBOHYD
VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             angiogenic protein, at 2.0 A resolution.";
J. Biol. Chem. 276:12153-12161(2001).
-i- FUNCTION: Growth factor active in angiogenesis, and endothelial cell growth, stimulating their proliferation and migration. It binds to receptor VEGFR-1/FLT1. PLGF-2 binds neuropilin-1 and 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                      PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
Mitogen; Growth factor; Glycoprotein; Signal;
                                                                                                                                                                                                                                                                                                                                                                       MIM;
                                                                                                                                                                                                                                                                                                                                                                                   PDB;
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                                                                                                                                                                                                                                                                                Alternative
                                                                                                                                                                                                                                                                                                                              SMART;
                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00341;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement
                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                         DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a heparin-dependent manner.
SUBUNIT: Antiparallel homodimer; disulfide-linked.
heterodimer with VEGF/VEGF-A. PIGF-3 is found both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              retention signal.
PTM: N-GLYCOSYLATED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN: PLGF-2 contains a basic insert which acts as a cell
                                                                                                                                                                                                                                                                                                                                                                       601121;
             PLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMG
PCFLQLLAGLALPAVPPQQWALSAGNGSSEVEVVPFQEVWGRSYCRALERLVDVVSEYPS
                                                                                                                                                                                                                                                                                                                          sm001629; PDGF; 1.
                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                          IPR000072; PDGF.
                                                                                                                                                                                                                                                                                                                                                                                   09-MAY-01.
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221 AA;
                                                                                                                                                         19
193
52
83
87
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77
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33
101
                                                                                                                                                                                                                                                                               splicing;
                                            Conservative
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221
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24788
                                                     24.5%;
                                                                                                                                                                                                                                                                                3D-structure.
                                                                                                   W.
                                            18;
                                         Score 176.5;
Pred. No. 3.9e
18; Mismatches
                                                                                                                                 N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
MISSING (IN ISOFORM F
PLGF-2).
R -> RRRPKGRGKRRREKQF
                                                                                                 PLGF-2).
N -> D (IN REF. 2)
; D364C6A73C1C6987
                                                                                                                                                                                        INTERCHAIN.
                                                                                                                                                                                                                                              PLACENTA GROWTH HEPARIN-BINDING
                                                                                                                                   RRRPKGRGKRRREKQRPTDCHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (See http://www.isb-sib.ch/announce/
                                         5; DB 1;
3.9e-11;
nes 60;
                                                                                                                                                                                                                                              (PROBABLE)
                                                                                                                                                                                                                                                                                         Heparin-binding;
                                                                                                   CRC64
                                                                                                                                                       .) (POTENTIAL).
.) (POTENTIAL).
PLGF-1 AND ISOF
                                                                Length
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-I- FUNCTION: Growth factor active in anglogenesis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a license agreement (Some send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and for commen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
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                                                                                                                                                                                                                                                                                              PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                 SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR000072;
Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    heterodimer with VEGF/VEGF-A.
-!- SUBCELLULAR LOCATION: Secreted (By similarity).
-!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rattus norvegicus (Rat).
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                                                                                                                                                                                                                                                                         Mitogen; Growth
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cell growth, stimulating their proliferation and migration. binds to receptor VEGFR-1/FLT1 (By similarity). SUBUNIT: Antiparallel homodimer; disulfide-linked. Also fou
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                                                                                                                                                                                                                      Glycoprotein; Signal.
OR 26.
PLACENTA GROWTH FACTOR.
     MW;
                                                   N-LINKED
     N-LINKED (GLCNAC. . .).
B4771373A82E15B9 CRC64;
                                                                                                 INTRACHAIN (BY SIMILARITY).
INTRACHAIN (BY SIMILARITY).
INTRACHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
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                            (GLCNAC. . .)
(GLCNAC. . .)
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Query Match Best Local Matches

Similarity 47; Conserv

24.5%;

20;

Score 176; DB 1; Pred. No. 3.2e-11; 0; Mismatches 55

Length 158; Indels

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RESULT 19
PLGF_MOUSE
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                                                                             MGD; POST. IPR000072; PDGF. InterPro; IPR000072; PDGF; 1. Pfam; PF00341; PDGF; 1. ProDom; PD001629; PDGF; 1.
                                                                                                                                                                    the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                  Dipalma T., Tucci M., Russo G., Magl Saccone S., della Valle G., de Grego Viglietto G., Persico M.G.; "The placenta growth factor gene of Mamm. Genome 7:6-12(1996).
                                                                                                                             EMBL; X80171; CAA56453.1; -. EMBL; X96793; CAA65587.1; -. HSSP; P15692; 2VPF.
                                                                                                                                                                                                                                               This
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae
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                                   Mitogen;
                                                                      ProDom; PD001629; PDGF; SMART; SM00141; PDGF; 1.
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                         SIGNAL
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Achen M.G., Gad J.M., Stacker S.A., Wilks A.F.;
"Placenta growth factor and vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-NIH
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                                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
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PS00249; PDGF_1; 1.; PS50278; PDGF_2; 1.; Growth factor; Glyco; Growth factor; Glyco
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34, Last sequence up
41, Last annotation
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M., Russo G., Maglione
Valle G., de Gregorio I
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Glycoprotein; Signal.
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PLACENTA GROWTH
BY SIMILARITY.
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Dragani T.A.
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             FACTOR
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gration. It
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Best Local S
Matches 39
RECEPTOR SPECIFICITY.

RECEPTOR SPECIFICITY.

RECEPTOR SPECIFICITY.

RECEPTOR SPECIFICITY.

Baldwin M.E., Catimel B., Nice E.C., Roufail S., Hall N.E.,

Stenvers K.L., Karkkainen M.J., Alitalo K., Stacker S.A., Achen M.G.;

"The specificity of receptor binding by vascular endothelial growth factor-d is different in mouse and man.";

J. Biol. Chem. 276:19166-19171(2001).

-I- FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and and endothelial cell growth selfects on the permeability of blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VEGD_MOUSE
P97946;
01-MAR-2002
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CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                      Avantaggiato V., Orlandini M., Embryonic expression pattern obelonging to platelet-derived growth factor family."; Mech. Dev. 73:221-224(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-97030254; PubMed-8876195;
Orlandini M., Marconcini L., Ferruzzi R., Oliviero S.;
"Identification of a c-fos-induced gene that is related
platelet-derived growth factor/vascular endothelial grow
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. STRAIN-C57BL/6J; TISSUE-Fibroblast;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence up
01-MAR-2002 (Rel. 41, Last annotation
Vascular endothelial growth factor D p
growth factor) (FIGF).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yamada Y., Nezu J.-I., Shimane M., Hirata Y.;
"Molecular cloning of a novel vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EQUENCE
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39; Conser
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Pred. No. 3.2e
L5; Mismatches
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INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                              , Acampora D., Oliviero of the murine figf gene growth factor/vascular
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Sciurognathi;
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precursor
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thi; Muridae;
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Murinae; Mus
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EMBL; D89628;
HSSP; P15692;
                                                                                                                                                                                                                                                                                                                    CARBOHYD
CARBOHYD
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PROSITE; PS50278; PDGF_2; 1.
PROSITE; PS50278; PDGF_2; 1.
Mitogen; Growth factor; Glycoprotein; Signal;
Mitogen; Growth factor; Glycoprotein; Signal;
Mitogene on pair of basic residues; Multigene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00341;
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                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR000072;
                                                                                   105
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vessels. May function in the formation of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-3 (Flt4) receptor.
SUBUNIT: Homodimer; non-covalent and antiparallel.
SUBCELLULAR LOCATION: Secreted.
TISSUE SPECIFICITY: Highly expressed in fetal and adult lung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEVELOPMENTAL STAGE: Expressed in a dynamic pattern in several body structures and organs of the embryo such as limb buds, acoustic ganglion, teeth, heart, anterior pituitary as well as lung and kidney mesenchyme, liver, derma, and periosteum of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INDUCTION: By the transcription factor c-fos
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TSYISKQLFEISVPLTSVPELVPVKIANHTGCKCLP
                                       QHQVRMQILMIRYPSSQLGEM---SLEEHSQCECRP
                                                                                                                         KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MGI:108037; Figf.
                                                                                   KVID--EEWQRTQCSPRETCVEVASELGKTTNTFFKPPCVNVFRCGGCCNEEGVMCMNTS
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BAA14002.1;
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INTRACHAIN (BY SIMILARITY).
INTRACHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .)
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4 X 16 AA ...
X(1,3)-C.
1 (APPROXII
2.
3.
                                                                                                                                                                                      Score 155.5;
Pred. No. 9.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POTENTIAL
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                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (See http://www.isb-sib.ch/announce/
198
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                                       126
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RESULT 2
VEGD_RAT
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RR Yamada Y., Hirata Y., Nezu J., Shimane M.;

RI Yamada Y., Hirata Y., Nezu J., Shimane M.;

RI Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.

CI -!- FUNCTION: Growth factor active in angiogenesis. Lymphangiogenesis can dendothelial cell growth, stimulating their proliferation and and condition and also has effects on the permeability of blood vessels. May function in the formation of the venous and lymphatic vessels. May function in the formation of the venous and lymphatic conditions of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-3 (Flt4) receptor (By similarity).

CI SUBRUNT: Homodimer, non-covalent and antiparallel (By similarity).

CI SUBCELLULAR LOCATION: Secreted (By similarity).

CI -!- SUBCELLULAR LOCATION: Secreted (By similarity).

CI -!- FTM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity toward CC veriety of processed secreted forms with increased activity toward CC veriety of processed secreted forms with increased activity toward CC veriety of processed secreted forms with increased activity processed composed mostly of two VEGF homology domains (VHDs) because of two VEGF homology domains (VHDs)
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REPEAT
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PROSITE; PS50278; PDGF_2; 1.
Mitogen; Growth factor; Glyc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     use by non-profit institute modified and this statement entities requires a license
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rattus norvegicus (Rat).
Rattus norvegicus (Chordata;
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor D precursor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 or send
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bound by non-covalent interactions (By similarity).
SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 an email to license@isb-sib.ch).
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  N-LINKED
                                       INTRACHAIN (BY SIMILARITY).
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                                                                                                                                                   (INCOMPLETE)
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                                                                                                                                                                                                                                    AA REPEATS
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(GLCNAC. . .)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Usage
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Matches 31
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P97953;
P97953;
P97953;
15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1998 (Rel. 41, Last annotation update)
01-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor C precursor (VEGF-C) (Vascular 'L-1491 growth factor related protein) (VRP) (Flt4 ligand) (Flt4-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                               Turner K.J., Wood C.R.;

"Characterization of murine Flt4 ligand/VEGF-C.";

"Characterization of murine Flt4 ligand/VEGF-C.";

"Characterization of murine Flt4 ligand/VEGF-C.";

Oncogene 15:613-618(1997).

-I- FUNCTION: Growth factor active in angiogenesis, and endotheliated the cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood vessels. May function in angiogenesis of the venous and lymphatic vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.,
STRAIN-BALB/C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "VEGF-C receptor binding and pattern of expression with VEGFR-3 suggests a role in lymphatic vascular development.";
Development 122:3829-3837(1996).
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Mammalia; Eutheria;
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Kukk E., Lymboussa
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STRAIN-BALB/C;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Giannotti J., Finnerty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=97388482; PubMed=9247316;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Joukov V., Alitalo K.;
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                                                                                                                                                          systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-2 (Flk1) and VEGFR-3 (Flk1) receptors. SUBUNIT: Homodimer; non-covalent and antiparallel. SUBCELLULAR LOCATION: Secreted.

TISSUE SPECIFICITY: Expression detected in mesenchymal cells of postimplantation embryos, particularly in the regions where the lymphatic vessels undergo sprouting from embryonic veins, such the perimetanephric, axillary and jugular regions, and in the developing mesenterium. Expressed in adult heart, brain, spleen
lung, liver, skeletal muscle and kidney.

PTM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity toward vEGFR-3, but only the fully processed form could activate VEGFR-2.

VEGFR-6 first form an antiparallel homodimer linked by disulfide bonds. Before secretion, a cleavage occurs between arg-227 and ser-228 producing an heterotetramer. The next extracellular step of the processing removes the N-terminal propeptide. Finally the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L.J., Morris J.C., Towler P.,
J., Gassaway R., Nickbarg E.,
notti J., Finnerty H., Zollner
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326 ‡
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Rodentia;
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Sciurognathi; Muridae;
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PRODOM; PD001022;
ProDom; PD00141; PDGF; 1.
SMART; SM00141; PDGF_1; 1.
PROSITE; PS00249; PDGF_2; 1.
PROSITE; PS50278; PDGF_2; 1.
Mitogen; Growth factor; Glycoprotein; Signal; Mittigene
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TOTAL PRODOCTION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE P
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Achen M.G., Jeltsch M., Kukk E., Maekinen T., Vita
Alitalo K., Stacker S.A.;
"Vascular endothelial growth factor D (VEGF-D) is
tyrosine kinases VEGF receptor 2 (Flk1) and VEGF r
Proc. Natl. Acad. Sci. U.S.A. 95:548-553(1998).
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Nice E.C., Roufail S., Simpson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Lung;
MEDLINE=98140120; PubMed=9479493;
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Yamada Y., Nezu J.-I., Shimane M., Hirata Y.;
"Molecular cloning of a novel vascular endothelial growth factor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | NCBI_TaxID=9606;
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Mammalia; Eutheria;
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                                                                                                                                                                                                                            send
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FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood vessels. May function in the formation of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-2 (Flk1) and VEGFR-3 (Flt4) receptors.

SUBCELULIAR ICCATION: Secreted.

SUBCELLULAR ICCATION: Secreted.

TISSUE SPECIFICITY: Highly expressed in lung, heart, small intestine and fetal lung, and at lower levels in skeletal muscle,
                                                                                                                                                                                                                                                                                                                                                                                                                    PTM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity towar VEGFR-3 and VEGFR-2. VEGF-D first form an antiparallel homodimer linked by disulfide bonds before secretion. The fully processed VEGF-D is composed mostly of two VEGF homology domains (VHDs) bound by non-covalent interactions.
D89630; BAA24264.1;

Y12863; CAA73370.1;

Y12865; CAA73371.1;

Y12865; CAA73371.1;

Y12866; CAA73371.1;

Y12866; CAA73371.1;

Y12868; CAA73371.1;

Y12869; CAA73371.1;

Y12869; CAA73371.1;
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MEDIJINE-94076465; PubMed-8254780;
Lyttle D.J., Fraser K.M., Fleming
"Homologs of vascular endothelial
poxvirus orf virus.";
J. Virol. 68:84-92(1994).
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MIM; 300091; -.
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                        -1- FUNCTION: INDUCES ENDOTHELIAL PROLIFERATION.
-1- SUBUNIT: HOMODIMER; DISULFIDE-LINKED (BY SIMILARITY).
-1- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
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Vascular endothelial growth factor C precursorendothelial growth factor related protein) (Vi
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                    MEDIINE=96203094; pubMed=8612600; 
JOuXov V, Pajusola K, Kalpainen 
Saksela O., Kalkkinen N, Alittalo 
EMBO J. 15:1751-1751(1996).
                                                                                                                                                                                                                  Joukov V., Pajusola K., Kaipainen A., Saksela O., Kalkkinen N., Alitalo K.;
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Mammalia; Eutheria; Primates;
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InterPro; IPR00072; PDGF.
Pfam; PF03128; CXCXC; 5.
Pfam; PF03128; CXCXC; 5.
Pfam; PF00341; PDGF; 1.
PRINTS; PR00438; GFCYSKNOT.
PRODOM; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF\_1; 1.
PROSITE; PS00249; PDGF\_2; 1.

Mitogen;

PS00249; PDGF\_1; 1. PS50278; PDGF\_2; 1. Growth factor; Glyc

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Signal;

Repeat; family.

residues; Multigene

EMBL; X94216; ( EMBL; U43142; / EMBL; U58111; / HSSP; P15692;

CAA63907.1; -. AAA85214.1; -. AAB02909.1; -.

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also has effects on the permeability of blood vessels. May function in angiogenesis of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-2 (FIRI) and VEGFR-3 (FIL4) receptors.

-: SUBGUNIT: Homodimer; non-covalent and antiparallel.
-: SUBCELLIGIAR LOCATION: Secreted.
-: TISSUE SPECIFICITY: Spleen, lymph node, thymus, appendix, bone marrow, heart, placenta, ovary, skeletal muscle, prostate, testis, colon and small intestine and fetal liver, lung and kidney, but not in peripheral blood lymphocyte.
-: PTM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity toward VEGFR-3, but only the fully processed form could activate VEGFR-2. VEGFF- (first form an antiparallel homodimer linked by disulfide bonds. Before secretion, a cleavage occurs between arg-227 and ser-228 producing an heterotetramer. The next extracellular step of the processing removes the Naternian processing the process.
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Turner K.J., Wood C.R.;
"Characterization of murine Flt4 ligand/VEGF-C.";
Oncogene 15:613-618(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=97388482; PubMed=9247316; Fitz L.J., Morris J.C., Towler P., Wang J., Gassaway R., Nickbarg E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=96312526; PubMed=8700872;
Lee J., Gray A., Yuan J., Luoh S.-M., Avraham H., Wood W.I.;
"Vascular endothelial growth factor-related protein: a ligand
specific activator of the tyrosine kinase receptor Flt4.";
Proc. Natl. Acad. Sci. U.S.A. 93:1988-1992(1996).
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Saksela O., Kalkkinen N., Alitalo K.;
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CTION: Growth factor active
1 growth, stimulating their
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MEDLINE-88174698; PubMed-2832727;
MEDSIME-8. Bywater M., Knott T.J., Scott Rorsman F., Bywater M., Knott T.J., Scott Structural characterization of the human factor A-chain cDNA and gene: alternative different precursor proteins.", Mol. Cell. Biol. 8:571-577(1988).
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Mammalia; Eutheria;
NCBI_TaxID=9606;
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01-NOV-1986 (Rel. 03, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
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                                                                                                                                                                                                                                                                                           463; PubMed=3422746;
Morton C.C., Orkin S.H., Collins T.;
ived growth factor A chain: gene structure,
basis for alternative mRNA splicing.";
cad. Sci. U.S.A. 85:1492-1496(1988).
                                                                            Johnsson
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chromosomal localization in and its expression in
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . . ) (POTENTIAL).
N-LINKED (GLCNAC. . . ) (POTENTIAL).
R-S: NO PROTEDLYTIC PROCESSING AND LEFFECT ON VEGFR-2 AND VEGFR-3.
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VASCULAR ENDOTHELIAL GROWTH FACTOR C.
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Tonhan W., Deuel
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SEQUENCE FROM N.A.
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MEDLINE-88030061; PubMed-3666150;
Hoppe J., Schumacher L., Eichner W
"The long 3'-untranslated regions"
The long 3'-untranslated regions
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                                                                                                                                         the European Bioinformatics Institute. There are no rest use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entitles requires a license agreement (See http://www.isborsend an email to license@isb-sib.ch).
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Andersson M., Oestman A., Baeckstroem G., Hellman U.,
George-Nascimento C., Westermark B., Heldin C.-H.;
"Assignment of interchain disulfide bonds in platelet-derived factor (PDGF) and evidence for agonist activity of monomeric P J. Biol. Chem. 267:11260-11266(1992).

-I- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Alternative RNA splicing affects growth factor A chain."; Nature 328:621-624(1987).
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MEDLINE-87287248; PubMed-3614364;
Collins T., Bonthron D.T., Orkin
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[7]
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Takimoto Y. Li W.Y. wang Z.Y. Tong
"Nucleotide sequence of the 5' region
growth factor A-chain gene.";
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                                                                                                                                                                                                                                                                                                                                            CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND. SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF MONIDENTICAL (A AND B) CHAINS. HOWODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.

ALTERNATIVE PRODUCTS: 2 ISOFORMS; a long form (shown here) and a short form; are produced by alternative splicing.

DOMAIN: The long form contains a basic insert which acts as a cell
                                                                                                                                                                                                                                           PDGF RECEPTOR.

SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.

DATABASE: NAME=R&D Systems' cytokine mini-reviews: PDGF;

WWW-"http://www.rndsystems.com/asp/g_sitebuilder_asp?bodyId=220"
                                                                                                                                                                                                                                                                                                                   retention signal MISCELLANEOUS: A
                                                                                                                                                                                                    SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
 M21571;
X03795;
X06374;
M20494;
M20489;
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M20490;
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4; CAA29677.1; -.
4; AAA60045.1; -.
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PubMed=3614363;
Tave M., Kaplow
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Mammalia; Eutheria; Lagomorpha;
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PROSITE; PS50278; PDGF_2; 1.
Glycoprotein; Mitogen; Growth
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         cuniculus (Rabbit).
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urheria; Lagomorpha; Leporidae; Oryctolagus.
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                                                                                                                                                                                                                                   Length 211;
                                                           (PDGF
                                                                                                                                                                                                                    Indels
                                                            A-chain)
                                                                                                                                                                                                                    28;
                                                                                                                                                                                                                                                                                                                                                                                             splicing;
                                                                                                                                                                                                                   Gaps
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RESULT 2
PDGA_RAT
ID PDGA
AC P285
AC P285
DT 01-E
DT 01-F
DT 01-N
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Best Local S
Matches 34
PDGA_RAT
P28576;
01-DEC-1992
01-FEB-1994
01-MAR-2002
                                                                                                                                                                                                                                                                                                                                                             SITE
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Identification of three types of PDGF-A chain gene transcripts in rabbit vascular smooth muscle and their regulated expression during development and by angiotensin II.",

Biochem. Biophys. Res. Commun. 184:811-818(1992).

-i- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARLETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.

-i- SUBGNIT: ANTIPARALLEL DISCUFIDE-LINKED DINGR OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
                                                                                                                                                                                                                                                                                                                                  VARSPLIC
VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                             PROPEP
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Signal.
                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nakahara K.-I., Nishimura H.,
Ohkubo A., Yazaki Y., Nagai R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
TISSUE-Vascular smooth muscle;
MEDLINE-92246970; PubMed-1575749;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProDom; PD001629; PDGF; SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR002400; GF_cys
InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
PRINTS; PR00438; GFCYSKNOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                       VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; P01127;
                                                                                                                        129
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                                                                                                                                                                           71
                                                                                                                                                                                                     19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSFORMATION PROCESSES.

ALTERNATIVE PRODUCTS: 3 ISOFORMS; A1, A2 (SHOWN HALLER, ALTERNATIVE PRODUCTS: 3 ISOFORMS; A1, A2 (SHOWN HALLER, ALTERNATIVE SPLICING.

PRODUCED BY ALTERNATIVE SPLICING.

PRODUCED BY ALTERNATIVE SPLICING.

PRODUCED BY ALTERNATIVE SPLICING.

PRODUCED BY ANGIOTENSIN

PRODUCED BY ANGIOTENSIN

PRODUCED BY ANGIOTENSIN

PRODUCED BY ANGIOTENSIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND B) CHAINS. HOMODIMERS TRANSFORMATION PROCESSES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JS0735; JS0735.
PS0387; PS0387.
JN0248; JN0248.
                                                                                                                                       QRCGGCCPDDGLECVPTGQHQVRMQILMIRY----PSSQLGEMSLEEHSQCEC
                                                                                                                                                                           KRCTGCCNTSSVKCQPSRVHHRSVKVAKVEYVRKKPKLKEVQVRLEEHLECAC
                                                                                                                                                                                                     AQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVV--VPLTVELMGTVAKQLV-PSCVTV 75
                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                               213
 (Rel.
(Rel.
(Rel.
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21
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158
131
135
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196
199
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mitogen;
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                                                       STANDARD;
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41,
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89
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181
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GF_cysknot.
                           Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Growth
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                                                                                                                                                                                                                                                                                               MW;
                                                                                                                                                                                                                              24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽.,
                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.

REMOVED BY PROTEOI

PLATELET-DERIVED O

RECEPTOR BINDING
                                                                                                                                                                                                                                       Score 127.5;
Pred. No. 4.1
                                                                                                                                                                                                                                                                                                       RRRESGKKRKRKRLRPT -> TLLPAPGGVHPQGCLRAHDG CQSSRNHMQALGWKKKM (IN ISOFORM A3).
                                                                                                                                                                                                                                                                                                                                  N-LINKED (GLCNAC. . .) (POT GRR -> DVR (IN ISOFORM A1).
MISSING (IN ISOFORM A1).
                                                                                                                                                                                                                                                                                                                                               INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . . ) (POTENTIAL)
GRR -> DVR (IN ISOFORM A1).
                                                                                                                                                                                                                                                                                                                                                                                                      BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kuro-O M., Takewaki S.-I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                factor; Platelet;
                                                                                                                                                                                                                                                                                                28A9B7E50487F4C5
                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                           BY PROTEOLYSIS (BY SIMILARITY) I-DERIVED GROWTH FACTOR, A CHAI
                                                       204
                                                                                                                                                                                                                                          4.1e-06;
                                                       A
                                                                                                                                                                                                                                                        DB 1;
                                                                                                                                                                                                                               46;
                                                                                                                                                                                                                                                                                                                                                                                                                              GROWTH FACTOR, A SITE (POTENTIAL).
                                                                                                                                                                                                                                                                                                CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alternative splicing;
                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Iwase
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                                                                                                                                                124
                                                                                                                                                                                                                               9;
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                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                               5
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Last annotation Last sequence

update)

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MEDLINE-93225589; PubMed-8469035;
Szabo P., Weksler B.B.;
Szabo P., Weksler D., Whittington E., Weksler B.B.;
"The age-dependent proliferation of rat aortic smooth muscle cells is independent of differential splicing of PDGF A-chain mrna.";
Mech. Ageing Dev. 67:79-89(1993).

-1- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.

-1- SUBUNIT: ANTI-PARALLEL DISULFIDE-LINKED DIMER OF MONIDENTICAL (A AND B) CHAINS. HONODIMERS OF AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.
                                                                                                                                                          EMBL;
                                                                                                                                                                                                                           EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kia Y., Feng L., XIA Y., Feng L., XIA Y., Feng L., XIA Y., Feng L., XIA Y., XI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE-93191115; PubMed-8447423;
Katayose D., Ohe M., Yamauchi K.,
Shibahara S., Takishima T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                       use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.lsb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 58-196 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypoxic pulmonary hypertension
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MEDLINE-93305723;
                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-FISCHER 344; TISSUE-Smooth muscle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Increased expression of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ligands and receptors."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Herren B., Weyer K.A., Rouge M., Loetscher "Conservation in sequence and affinity of )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID-10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (PDGF-1).
PDGFA OR RPA1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Platelet-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Am. Soc. Nephrol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EN European Bioinformatics Institute. There are no resti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALTERNATIVE PRODUCTS: 2 isoforms; a long form (sho short form; are produced by alternative splicing. DEVELOPMENTAL STAGE: IN KIDNEY EPITHELIAL TISSUES, FORM PREDOMINATES IN YOUNG (1 DAY OLD) RATS WHILE BECOMES MORE PREVALANT DURING AGING.

DOMAIN: The long form contains a basic insert whic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PDGF RECEPTOR. SIMILARITY: BE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      retention signal.
MISCELLANEOUS: A-A AND B-B,
                                                                                                                        L06894;
Z14120;
D10106;
L06238;
S57864;
P01127;
                        Pro; IPR002400; GF_cysknot.
Pro; IPR000072; PDGF.
PF00341; PDGF; 1.
PR00438;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biophys.
                                                                                                                                                   ; AAB59693.1;
; CAA78490.1;
; BAA00987.1;
; AAA41932.1;
; AAB26134.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BELONGS TO THE PDGF/VEGF FAMILY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          264:L100-L106(1993).
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GFCYSKNOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FROM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SHORT FORM).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3:622-622(1992).
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                                                                                                                                                                                                                                                   . .
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wilson C.H.;
rat platelet-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (SHORT FORM).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Veri
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Þ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chain precursor (PDGF A-chain)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B-chain genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AS
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thi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         А-В,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pech
n and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ×.
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rodent
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; Murinae; Rattus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         restrictions
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  RESULT 29
PDGA_MOUSE
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Best Local S
Matches 31
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01-OCT-1996
01-MAR-2002
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SEQUENCE
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DISULFID
DISULFID
DISULFID
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CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROPEP
CHAIN
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Signal
SIGNAL
embryogenesis.";

Dev. Biol. 138:114-122(1990).

1: FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO IT: AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VARSPLIC
VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Prodom; pD001629; pDGF; 1.
SMART; SM00141; pDGF; 1.
PROSITE; pS00249; pDGF_1; 1.
PROSITE; PS50278; pDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                   PDGA_MOUSE P20033;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Glycoprotein;
                                                                   Mercola M., Wang C., K
Stiles C., Bowen-Pope
                                                                                MEDLINE=90169294; PubMed=2155144; Mercola M., Wang C., Kelly J., Brownlee
                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CONFLICT
                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                   Growth Factors 6:303-313(1992).
                                                                                                                                                      conservation of gene structure,
                                                                                                                                                                             Rorsman F., Betsholtz
                                                                                                                                                                                      MEDLINE=94031105; PubMed=1340209;
                                                                                                                                                                                                 STRAIN-BALB,
                                                                                                                                                                                                          SEQUENCE FROM N.A. (LONG
                                                                                                                                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                            Mus musculus (Mouse)
                                                                                                                                                                                                                                                                         PDGFA.
                                                                                                                                                                                                                                                                                            Platelet-derived
                                                            "Selective expression
                                                                                                                                                                 "Characterization of
                                                                                                                                                                                                                                                                                 (PDGF-1).
                                                                                                                                                                                                                                                                                                                                                                                                153
                                                                                                                                                                                                                                                                                                                                                                                                                     102
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                                                                                                                                                                                                                                                                                                                                                                                                AKVEYVRKKPKLKEVQVRLEEHLECAC----ATSNLNPD
                                                                                                                                                                                                                                                                                                                                                                                                                                       AVCKTRTVIYEIPRS-QVDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                119
204 AA;
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(Rel. 34, Last sequence update)
(Rel. 41, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                   PSSQLGEMSLEEHSQCECRPKKKDSAVKPD
                                                                                                                                                                                                                                                                                                                                              STANDARD;
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23307
                                                                                                                (SHORT FORM).
                                                                                                                                                                                                                                         Chordata;
Rodentia;
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1134
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31.3%;
                                                                                                                                                                 the mouse PDGF
                                                             D.;
of PDGF A
                                                                                                                                                                                                           AND SHORT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 127; DE
Pred. No. 4.5e
?0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-LINKED (GLCNAC: ...) (BY SIM GRR -> DVR (IN SHORT ISOFORM). MISSING (IN SHORT ISOFORM).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . ) (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REMOVED BY PROTECT PLATELET-DERIVED RECEPTOR BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FARPGRSFTRYLGARWT (IN REF. I -> T (IN REF. 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KRSIEEAIPAVCKTRTVIYEIPRSQVD -> FARPGRSFTRYLGARWT (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                       Craniata; Ver
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -> T (IN REF. 3)
FA413F74E86F742C
                                                              and
                                                                                                                                                         nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      127;
No. 4.
                                                                                                                                                                                                           FORMS)
                                                              its receptor during early mouse
                                                                                                                                                                 A-chain gene.
                                                                                                                                                                                                                                                                                                                                              211
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DERIVED GROWTH
BINDING SITE (P
                                                                                c.,
                                                                                                                                                                                                                                                   Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                           precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
.5e-06;
                                                                                                                                                                                                                                                                                                                                              A
                                                                                                                                                         sequence
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742C CRC64;
                                                                                                                                                                                                                                         Muridae;
                                                                                  Jackson-Grusby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36;
                                                                                                                                                                                                                                                                                                                                                                                                187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 204;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alternative
                                                                                                                                                                 Evolutionary
                                                                                                                                                                                                                                                                                            (PDGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
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                                                                                                                                                          and
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                                                                                                                                                                                                                                         Murinae;
                                                                                                                                                         alternative
                                                                                                                                                                                                                                                                                            A-chain)
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           ITS
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IN STIMUI SUBUNIT:

STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEALS THE WOUND.
BUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A
D B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN

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Query Match
Best Local Similarity
                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Glycoprotein;
Signal.
SIGNAL
                                                                                                                                                                                                                                              VARSPLIC CONFLICT
                                                                                                                                                                                                                                                                                   CARBOHYD
VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWI
between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the European Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                     SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR00438; GFCYSKNOT. ProDom; PD001629; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR002400;
InterPro; IPR000072;
Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP: P01127; 1
MGD; MGI:97527;
                                                                                                                                                                                                                               CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR; A37359; A37359.
102 LMIRY----PSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                       94
                                                                            45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSFORMATION PROCESSES.

ALTERNATIVE PRODUCTS: 2 isoforms; a long form (shown here) and a short form; are produced by alternative splicing.

DOMAIN: The long form contains a basic insert which acts as a cel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. S66873; AAB28740.2; S66868; AAB28740.2; S668670; AAB28740.2; S66871; AAB28740.2; S66872; AAB28741.2; S66868; AAB28741.2; S66869; AAB28741.2; S66870; AAB28741.2; S66871; AAB28741.2; S66871; AAB28741.2; S66871; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S66872; AAB28741.2; S6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MISCELLANEOUS: A-A AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  retention signa
                                       AVCKTRTVIYEIPRS-QVDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKV 152
                                                                          ATCOPREVV -- VPLTVELMGTVAKQLV - PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
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                                                                                                                 Conservative
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24102
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                                                                                                                                 17.7%;
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                                                                                                                 20;
                                                                                                                                                                                                                           INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . ).
GRR -> DVR (IN SHORT ISOFORM).
MISSING (IN SHORT ISOFORM).
V -> I (IN REF. 2).
H -> D (IN REF. 1).
                                                                                                             Score 127; DB 1;
Pred. No. 4.6e-06;
0; Mismatches 36;
                                                                                                                                                                                                                                                                                                                                                            RECEPTOR
BY SIMILA
BY SIMILA
                                                                                                                                                                                                                                                                                                                                                                                                                                    PLATELET-DERIVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                          REMOVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             factor; Platelet; Alternative splicing;
                                                                                                                                                                                                         -> I (IN REF. 2).
-> D (IN REF. 1).
AC4345A10ECF4B39 CRC64;
                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AS WELL AS A-B, DIMERS CAN
                                                                                                                                                                                                                                                                                                                                                                SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                 BY PROTEOLYSIS.
T-DERIVED GROWTH FACTOR,
R BINDING SITE (POTENTIAL
                                                                                                                                                  Length 211;
                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    acts as a cell
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                                                                                                                 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                    A CHAIN
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Ş В

Query Match

Score

127;

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μ,

Length

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   153
AKVEYVRKKPKLKEVQVRLEEHLECAC----ATSNLNPD 187
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PDGB_FELCA
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Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.

- i- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.

- i- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
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MEDLINE=87146463; PubMed=3822831;
wan den Ouweland A.M.W., van Groningen J.J.M., Schalken
van Neck H.W., Bloemers H.P.J., van de Ven W.J.M.;
"Genetic organization of the c-sis transcription unit.";
Nucleic Acids Res. 15:959-970(1987).
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P12919;
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PROSITE; PS50278; PDGF_2; 1.
Mitogen; Growth factor; Prot
                                                                                                                                                                                                                                                                                                                           ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
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InterPro; IPR000072;
Pfam; PF00341; PDGF;
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  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PDGFB OR SIS.
Felis silvestris catus (Cat).
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16-OCT-2001
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. 40, Last annotation update)
growth factor, B chain precursor (PDGF B-chain)
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PDGF.
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P01128; 041283;
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PROSITE; PS50278; PDGF_2; 1.
Oncogene; Growth factor.
SEQUENCE 226 AA; 25411 MW
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Devare S.G., Reddy E.P., Law J.D., Robbins K.C., Aa "Nucleotide sequence of the simian sarcoma virus gedemonstration that its acquired cellular sequences
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21-JUL-1986 (Rel.
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InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
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Proc. Natl. Acad. Sci. U.S.A. 80:731-735(1983).
-I- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY
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Viruses; Retroid viruses;
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P01127; P78431;
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Rao C.D., Igarashi H., Chiu I.-M., Robbins K.C., Aaronson S.
"Structure and sequence of the human c-sis/platelet-derived factor 2 (SIS/PDGF2) transcriptional unit.";
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Science 225:636-639(1984).
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Josephs S.F., Ratner L., Clarke M.F.,
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Burgess J., Odell C.;
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MEDLINE=85269623; PubMed=2991848;
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Hellewell P.G., Kirwin P.M., Nayee P.D.,
Chahwala S.B., Snarey M., Winslow D.;
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"Human platelet-derived growth factor acid sequence.";
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K01918; AAA60552.1;
J00121 AAA60552.1;
K01398; AAA60552.1;
K01399; AAA60552.1;
K01399; AAA60552.1;
K01399; AAA60552.1;
K01399; AAA60552.1;
K01399; AAA60552.1;
K019140; AAA60553.1;
K01917; AAA98793.1;
K01917; AAA98793.1;
K01914; AAA98793.1;
K01914; AAA98793.1;
K01914; AAA98793.1;
K01914; AAA98793.1;
K01916; AAA98793.1;
K01916; AAA98793.1;
K01916; CAA25228.1;
K03702; CAA27333.1;
K01916; CAA25228.1;
K00561; CAA25229.1;
K00561; CAA25229.1;
K00561; CAA25229.1;
K00561; CAA25229.1;
K00561; CAA25229.1;
K00561; CAA25229.1;
K00561; CAA252229.1;
K00561; CAA252229.1;
K00561; CAA252229.1;
K00561; CAA252229.1;
K00561; CAA25229.1;
K00561; CAA252229.1;
K00561; CAA25229.1;
K00561; CAA252241;
K00561; CAA252241;
K00561; CAA57444;
K00561; CAA57444;
K00561; 
QVRKIEIVRKKPIFKKATVTLEDHLACKC
                                                        AECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRNVQCRPT---QVQLRPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; PD001629; PDGF;
SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  an
                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   requires a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  email to license@isb-sib.ch).
                                                                                                                        Conservative
                                                                                                                                                                                  21
82
191
108
111
97
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123
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101
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81
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                                                                                                                                       17.1%;
34.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GF_cysknot.
PDGF.
                                                                                                                                                                                                                                                                                                                                                                                                                  Proto-oncogene;
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JOINED
                                                                                                                       17;
                                                                                                                                                                               INTERCHAIN.
INTERCHAIN.
E -> R (IN )
T -> E (IN )
E -> C (IN )
                                                                                                                                                                                                                                                                                                             INVOLVED
                                                                                                                       Pred. No. 1.46
7; Mismatches
                                                                                                                                                    Score
                                                                                                                                                                                                                                                                                                                                                          PLATELET - DERIVED
                             124
180
                                                                                                                                                                                                                                                                                                              Z Z
                                                                                                                                                                                    REF.
                                                                                                                     DB 1;
.4e-05;
les 29;
                                                                                                                                                                                                                                                                                                                                                                                                                    Platelet;
                                                                                                                                                                                                                                                                                                             RECEPTOR
                                                                                                                                                                                  3).
11).
11).
                                                                                                                                                                                                                                                                                                                                                          GROWTH FACTOR,
                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                             BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                    Signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           restrictions
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PDGA\_XENLA P13698; 01-JAN-1990 01-JAN-1990

STANDARD;

PRT;

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(Rel.

Created) Last sequence

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DISULFID
DISULFID
CARBOHYD
VARSPLIC
                                                        DISULFID DISULFID DISULFID
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Nucleic acids Res. 18:680-680(1990).

Nucleic Acids Res. 18:680-680(1990).

It function: platelet oberived growth factor is a potent mitogen for cells of mesenchymal origin. Binding of this growth factor to its affinity receptor elicits a variety of cellular responses. It is released by platelets glown wounding and plays an important role in stimulating adjacent cells to grow and thereby Heal the wound.

In Stimulating adjacent cells to grow and thereby heal the wound.

Subunit: antiparallel disulfide-linked dimer of monidentical (A and B) Chains. Homodimers of a and B Chains are implicated in
                                                                                                                                                                                                                                                                                 EMBL; M23237; AAA49927.1; --
EMBL; M23238; AAA49928.1; --
EMBL; X17545; CAA35583.1; --
PIR; S08220; S08220.
HSSP; P01127; 1PDG.
                                                                                                                                                                                                                                                                                                                                                        entities requires a license agreement (See http://www.isb-sib.ch/announce, or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                           Signa
                                                                                                                                                                  PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                              PRINTS; PRO0438; GFCYSKNOT.
ProDom; PD001629; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mercola M., Melton D.A., Stiles C.D.;
"Platelet-derived growth factor A chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Oocyte;
MEDLINE=88321676; PubMed=3413486;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleost
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (PDGFA).
Xenopus laevis (African
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2002 (Rel. 41, Last annotation update)
                                                                                                                  PROPEP
                                                                                                                                 SIGNAL
                                                                                                                                                         Glycoprote:
                                                                                                                                                                                                  SMART; SM00141;
                                                                                                                                                                                                                                                      InterPro; IPR002400; GF_cysknot.
InterPro; IPR000072; PDGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xenopus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Nucleotide sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALTERNATIVE PRODUCTS: 2 isoforms; a long form (s short form; are produced by alternative splicing DOMAIN: The long form contains a basic insert wh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          retention signal.
MISCELLANEOUS: A-A AND B-B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PDGF RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSFORMATION PROCESSES.
                                                                                                                                                                                                                                      PF00341; PDGF;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         embryos.";
241:1223-1225(1988).
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                                                                                                                                                         Mitogen;
                                                                                                                                                                                                  PDGF; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PubMed=2308861;
.Y., Deuel T.F.;
    22
91
226
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                                                                                                                                                         Growth
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clawed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       factor, A chain precursor
PLATELET-DERIVED GROWTH FACTOR,
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (PROBABI
GFF -> DVR (IN SHORT ISOFORM).
                                                                                                                  REMOVED
                                                                                                                                                         factor; Platelet; Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          frog).
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                                                                                                                  BY PROTEOLYSIS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          А-В,
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                 (PROBABLE).
                                                                                                  FACTOR,
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Best Local S
Matches 28
                                                                                                                                                                                                                                                                                            MEDILINE-9527/908; PUDMed-1/JOANU, Schwartz S.M., Reidy M.A.;
Lindner V., Giachelli C.M., Schwartz S.M., Reidy M.A.;
"A subpopulation of smooth muscle cells in injured rat arteries expresses platelet-derived growth factor-B chain mRNA.";
Circ. Res. 76:951-957(1995).
-i-FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE RELEASED BY DATELETS UPON WOUNDING AND THEREBY HEAL THE WOUND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VARSPLIC CONFLICT
                    whis Swiss Institute of Detween the Swiss Institute of the European Bioinformatics Institute. There was by non-profit institutions as long a modified and this statement is not removed entities requires a license agreement (See entities requires a license agreement (See entities requires a license@fisb-sib.ch).
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

MEDLINE=93305723; PubMed=8318539;
Herren B., Weyer K.A., Rouge M., Loetscher "Conservation in sequence and affinity of h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-FEB-1994 (Rel. 28, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update)
Platelet-derived growth factor, B chain precu
                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q05028;
01-FEB-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
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                                                                                                                                                                                                                                                                       <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=95277908; PubMed=7758166; Lindner V., Giachelli C.M., Schwa
                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 74-182 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Biochim. Biophys. Acta 1173:294-302(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PDGFB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ligands and receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (PDGF-2) (Fragment).
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                                                                                                                                                               PDGF RECEPTO
SIMILARITY:
                                                                                                                                                                           TISSUE SPECIFICITY: EXPRESSED IN A DISTINCT OF SMOOTH MUSCLE CELLS IN INJURED ARTERIES.
MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B, PDGF RECEPTOR.
                                                                                                                                                                                                                                                    IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WO MAY HAVE A CLEMOTACTIC ROLE IN INTIMAL THICKENING.
SUBBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIWER OF NONLDENTICAL AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
                                                                                                                                                                                                                                        TRANSFORMATION PROCESSES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LMIRY----PSSQLGEMSLEEHSQCEC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCOPREVV -- VPLTVELMGTVAKQLV - PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI
Z14117;
L40991;
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(Rel. 28, Last sequence up)
(Rel. 34, Last annotation)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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199
218
 CAA78487.1;
AAA70048.1;
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                                                                                                                                                               BELONGS TO THE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 119; DB
Pred. No. 3.3e
18; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MISSING (IN SHORT ISOFORM MISSING (IN REF. 2).
Q -> R (IN REF. 2).
; E3E724FCF67C2FB2 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                             PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        124
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No. 3
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                                                                                                   There
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         precursor (PDGF B-chain)
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as its content
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                                                       http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Muridae; Murinae; Rattus.
                                                                       Usage
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n and
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NON_TER
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Probom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE: PS00249; PDGF_1; 1.
PROSITE: PS50278; PDGF_2; 1.
                                                                                                                                    Bonthron D.T., Sultan P., Collins T.;
"Structure of the murine c-sis proto-oncogene (Sis, the B chain of platelet-derived growth factor.";
                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE=91257844; PubMed=2045107;
                                                                                                                                                                                                                                              Platelet-derived (PDGF-2) (c-sis)
                      ÷
                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                           Mus musculus (Mouse)
                                                                                                                                                                                                                                     PDGFB OR SIS.
                                                                                                                                                                                                                                                                                   01-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
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HSSP; P01127; 1PDG.
                                                                                                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                01-JUL-1993
16-OCT-2001
                                                                                                                                                                                                                                                                                                      PDGB_MOUSE
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                                                                                                                                                                                                                                                                                                                                                                                                             45
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                                                          IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
                      SIMILARITY:
                              MISCELLANEOUS: A-A PDGF RECEPTOR.
                                                 AND B) CHAINS. HOMODIMERS TRANSFORMATION PROCESSES.
                                                                                                                                                                                                                                                                                                                                                                       MIR-----YPSSQLGEMSLEEHSQCECRPKKKDSAVKP 135
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  SWISS-PROT
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                                                                                                                                                                                                                                                                                                                                                                                                                                . Similarity
32; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Growth
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IPR000072;
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                     BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
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Rodentia;
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INVOLVED IN RECEPTOR BINDING.
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INTERCHAIN (BY SIMILARITY).
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INTERCHAIN (BY SIMILARITY).
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Pred. No. 9.5e
9; Mismatches
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Sciurognathi; Muridae;
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                          PDGFB.
Ovis aries (Sheep).
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CHAIN
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pec
Bovidae; Caprinae; Ovis.
                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1. Mitogen; Growth factor; Prot
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS; PR00438; GFCYSKNOT PRODOM; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR002400; GF_cysknot.
InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
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PIR; A39073; F
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M84448; AAA40113.1;

M84450; AAA40113.1;

M84450; AAA40113.1;

M84451; AAA40113.1;

M84452; AAA40113.1;

M64845; AAA37485.1;

M64845; AAA37485.1;

M64846; AAA37485.1;

M64847; AAA37485.1;

M64847; AAA37485.1;

M64848; AAA37485.1;

M64848; AAA37485.1;
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an email to license@isb-sib.ch).
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33.7%;
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th factor, B chain precu
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BY SIMILARITY.
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PLATELET-DERIVED GROWN
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Pred. No. 0.00
17; Mismatches
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POT
; 3C5EB7A2DAD64178 CRC64;
                                                                                                              PRT;
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                                                                                                              241
                                                          precursor
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                                                                                                                                                                                                                                                                Length
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          Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                   BINDING.
                                                          (PDGF B-chain)
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                     Euteleostomi;
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Woodall C.J., Zhang Z., Watt N.J.;

Woodall C.J., Zhang Z., Watt N.J.;

Woodall C.J., Zhang Z., Watt N.J.;

Submitted (SEP-1996) to the EMBL/GenBank/DDBJ databases.

-i- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY ELATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.

-i- SUBBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
VEGC_RAT STANDARD; PRT; 126 AA.
035757;
01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor C precursor (VEGF-C) (Vascular
                                                                                                                                                                                                                                                                                                                                  SITE
DISULFID
DISULFID
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CARBOHYD
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PROPEP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PRO0438; GFCYSKNOT.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
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InterPro; IPR000072;
Pfam; PF00341; PDGF;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           European Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in ified and this statement is not removed. Usage by and for contents are not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MISCELLANEOUS: A-A AND B-B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PDGF RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSFORMATION PROCESSES.
                                                                                                                                                                                                                ATCQPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through a ceen the Swiss Institute of Bioinformatics and the EMBL
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BY SIMILARITY.

PLATELET-DERIVED GROWTH FACTOR, B
BY SIMILARITY.

INVOLVED IN RECEPTOR BINDING.
INVOLVED IN RECEPTOR BINDING.
BY SIMILARITY.

BY SIMILARITY.
                                                                                                                                                                                                                                                Score 108; DB 1;
Pred. No. 0.00047;
4; Mismatches 38
                                                                                                                                                                                                                                                                                                                  INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTE:
37BELEC12E7D2863 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                oncogene; Platelet;
                                                                                                                                          180
                                                                                                                                                                   124
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RESULT 38
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VSVYRCGGCCNSEGLQCMNTSTGYLSKTLFEITVPLSQGPKPVTISFANHTSCRCMSK VTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGE----MSLEEHSQCECRPK

58

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73 μ.

Query Match Best Local Matches

Similarity

14.5%;

Conservative

9;

Score 104.5; DB 1 Pred. No. 0.00056; 9; Mismatches 25

DB 1;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                               Cleavage
                                                                                                               PROSITE;
                                                                                                                         SMART; SM00141; PDGF; 1.
                                                                                                                                          InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
                                                                                                                                                           EMBL; AF010302; AAB63248.1; HSSP; P15692; 2VPF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VEGEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  endothelial growth factor related protein) (VRP) (Flt4 ligand) (Flt4-
                                                                       PROPEP
                                                                                                        Mitogen;
                                                                                                                                  ProDom;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          L) (Fragment).
                                                                                                                                  PD001629; PDGF; 1.
                                                                                                on
                                                                                                        PS50278; PDGF_2; 1. Growth factor; Glyc
126
                                                                                               pair of basic
       72
72
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AA,
                71
>126
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                                                                                                        Glycoprotein;
Œ,
                                                                                              residues; Multigene family
              POTENTIAL.
BY SIMILARITY.
BY SIMILARITY.
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .)
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                                                                             VASCULAR ENDOTHELIAL GROWTH
8F365AFBC4E037B0 CRC64;
                         (POTENTIAL)
                (POTENTIAL)
                                                                               FACTOR
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Pfam; PF0(
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the Eurc
                                                                                                                                                                                                                                                                                                                          Pfam; PF00226; DnaJ; 1.
Pfam; PF01556; DnaJ_C; 1.
Pfam; PF00684; DnaJ_CXCXGXG;
PRINTS; PR00625; DNAJPROTEIN.
SMART; SM00271; DnaJ; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 I- FUNCTION: ACTS AS A CO-CHAPERONE. STIMULATES, JOINT THE ATPASE ACTIVITY OF DNAK (BY SIMILARITY).
I- COPACTOR: BINDS TWO ZINC IONS PER MONOMER (BY SIMIL SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
I- SUMLERITY: BELONGS TO THE DNAJ FAMILY.
I- SIMILARITY: CONTAINS 1 CR DOMAIN.
I- SIMILARITY: CONTAINS 1 CR DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cole S.T., Eiglmeier K., Parkhill J., James K.D., Thomson N.R., Wheeler P.R., Honore N., Garnier T., Churcher C., Harris D., Mungall K., Basham D., Brown D., Chillingworth T., Connor R., Davies R.M., Devlin K., Duthoy S., Feltwell T., Fraser A., Hamlin N., Holroyd S., Hornsby T., Jagels K., Lacroix C., Maclean J., Moule S., Murphy L., Oliver K., Quail M.A., Rajandream M.A., Rutherford K.M., Rutter S., Seeger K., Simon S., Slamnonds M., Skelton J., Squares R., Squares R., Stevens K., Taylor K., Whitehead S., Woodward J.R.,
                                                                                                                                             REPEAT
                                                                                                                                                                                                                                                       PROSITE; PS00636; DNAJ_1; FALSE_NEG.
PROSITE; PS50076; DNAJ_2; 1.
PROSITE; PS00637; DNAJ_CXXCXXXX; FALSE_NEG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U00016; AAA17167.1; -. EMBL; AL583919; CAC30133.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Massive gene decay in the leprosy bacillus."; Nature 409:1007-1011(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Squares S., S
Barrell B.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mycobacterium leprae.
Bacteria; Firmicutes; Actinobacteria;
Bactinomycetales; Corynebacterineae; My
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DNAJ2 OR ML0625 OR B1937_F2_56.
                                                                                                                                                                                                                Complete
                                                                                                                                                                                                                                        Chaperone;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=21128732; PubMed=11234002; Cole S.T., Eiglmeier K., Parkhill J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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16-OCT-2001
                                                                                                                                                                   DOMAIN
                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Leproma; ML0625;
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                                                                                                                                                                                                                                                                                                                                                                                                                                        IPR003095; DnaJ.
IPR002939; DnaJ_C.
IPR001305; DnaJ_CXXCXGXG.
IPR001623; DnaJ_N.
                                                                                                                                                                                                                                        DNA
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(Rel. 40, La
protein dnaJ2
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CXXCXGXG MOTIF.
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ZINC 1 (BY SIMILARITY).
ZINC 1 (BY SIMILARITY).
ZINC 2 (BY SIMILARITY).
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GLY-RICH.
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15-JUL-1998
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                                   This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entitles requires a license agreement (See http://www.isb-seried.
                                                                                                                                                                                                                                                                                           Wilson R., Ainscough R., Anderson K., Baynes C., Berks M.,
Bonfield J., Burton J., Connell M., Copsey T., Coulson
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fraser A.,
Fulton L., Gardner A., Green P., Hawkins T., Hillier L., Jier M.,
Johnston L., Jones M., Kershaw J., Kirsten J., Laisster N.,
Johnston L., Jones M., Kershaw J., Kirsten J., Laisster N.,
Latreille P., Lightning J., Lloyd C., Mortimore B., O'Callaghan M.,
Parsons J., Percy C., Rifken L., Rooman A., Saunders D., Shownkeer
Sims M., Smaldon N., Smith A., Smith M., Sonnhammer E., Staden R.,
Sulston J., Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K.,
Waterston R., Watson A., Weinstock L., Wilkinson-Sproat J.,
                                                                                                                                       Submitted (NOV-1997) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: STRONG, TO D1044.3.
-!- SIMILARITY: CONTAINS 5 BPTI/KUNITZ INHIBITOR DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis. NCBI_TaxID=6239;
                                                                                                                                                                                              REVISIONS.
STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=BRISTOL N2;
MEDLINE=94150718; PubMed=7906398;
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                                                                                                                                                                                Jones S.J.M.;
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(Rel. 36, Last sequence update)
(Rel. 41, Last annotation updat)
1 316.1 kDa protein ZC84.1 in ch
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ã,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
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184
187
198
201
40399
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ZINC 2 (BY SIMILARITY).
ZINC 2 (BY SIMILARITY).
ZINC 1 (BY SIMILARITY).
ZINC 1 (BY SIMILARITY).
ZINC 1 (BY SIMILARITY).
                                                      Institute. There are no restrictions utions as long as its content is in is not removed. Usage by and for con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred.
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No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1416
                                       noved. Usage by and for (See http://www.isb-sib.
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0.9;
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                                                                                                                                                                                                                                                                     chromosome III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 378;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                              gh a collaboration -
                                                                                                                                                                                                                                                                                                                                        Shownkeen
                                                                                                                                                                                                                                                                                                                                                                                                              Coulson A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       32;
                                          .ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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Best Local
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InterPro; IPR002899; I
InterPro; IPR000561; I
InterPro; IPR002223; F
                                                                                                                                                                                                                                                                                                                             GRN_CAVPO
P28797;
01-DEC-1992
01-DEC-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMART;
                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; NCBI_TaxID=10141;
                                                                                                                                                                                                                                                                                       01-DEC-1992 (Rel. 24, Created)
01-DEC-1992 (Rel. 24, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Granulins precursor (Acrogranin) [Contains: G
Granulin 3; Granulin 4; Granulin 5; Granulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00280; BPTI_KUNITZ_1; 3. PROSITE; PS01289; BPTI_KUNITZ_2; 5. PROSITE; PS01186; EGF_2; UNKNOWN_1.
  between
the Euro
                                                          "Acrogranin, an acrosomal cysteine-rich glycoprotein, is the precursor of the growth-modulating peptides, granulins, and epithelins, and is expressed in somatic as well as male germ (MOL. Reprod. Dev. 34:233-243(1993).

- PUNCTION: GRANULINS HAVE POSSIBLE CYTOKINE-LIKE ACTIVITY.
- PLAY A ROLE IN INFLAWANTION, WOUND REPAIR, AND TISSUE REM.
-!- TISSUE SPECIFICITY: UBIQUITOUS.
                                                                                                                                                     TISSUE-Testis;
MEDLINE-93228994; PubMed-8471244;
Baba T., Hoff H.B. III, Nemoto H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hypothetical DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam;
                                                                                                                                              Gerton G.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                              1141
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HSSP;
                                                                                                                                                                                            SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                               (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1037
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    n; PF01683; EB; 3.
m; PF00014; Kunitz_BPTI; 5.
NTS; PR00759; BASICPTASE.
RT; SM00131; KU; 5.
RT; SM00289; WR1; 13.
                                              PTM: GRANULINS ARE DISULFIDE
   European
SWISS-PROT entry is copyright. It is produced through a ceen the Swiss Institute of Bioinformatics and the EMBL European Bioinformatics Institute. There are no restrict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PAQAPVSQPDAP-----
                                                                                                                                                                                                                                                                                                                                                                                                                             NKAKLGEACLTVRQCQENSGCIEGSCECKKGFIEKAGKCMTPVEKKSAV 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                  PSSQLGEMSL----EEHS-----QCECR-----PKKKDSAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ECHAQVGPGSECLANEQCTGGSVCEDAKCECRPPLKAVGGFCQEEIQCSSNQVLHNGLCH 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TVAKQLVP--SCVTVQRC--GGCCPDDGLECVPT------GQHQVRM---QILM--IRY 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PEKCVVGQSNCPRGFACQKSLAGHHVCCTVRKV-----ACESNEVIIE-----G
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212 266
337 387
434 488
538 59
646 69
1416 AA;
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387
484
590
698
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; EGF-like.
; Kunitz_BPTI.
                                                                                                                                                                                             AND SEQUENCE
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23.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ne protease inhibitor; Repeat
BETI/KUNITZ INHIBITOR 1.
BETI/KUNITZ INHIBITOR 2.
BETI/KUNITZ INHIBITOR 3.
BETI/KUNITZ INHIBITOR 4.
BETI/KUNITZ INHIBITOR 5.
BETI/KUNITZ INHIBITOR 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -GHQ----RKVVSWIDVYTRATCQPREVVVPLTVELMG
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                  PRT;
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No. 9
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                                                                       REMODELING.
              a collaboration -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       69;
                                                                                                          cells.";
            outstation
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RESULT
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Best Local S
Matches 31
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01-AUG-1992 (Rel. 2:
01-AUG-1992 (Rel. 2:
01-AUX-2000 (Rel. 3:
30-MAX-2000 (Rel. 3:
Adenylate cyclase,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PEPTIDE
CARBOHYD
                                                                                Proc.
                                                                                                                                                                       Eukaryota; Métazoa; Chórdata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             use by non-profit institutions as lon-
modified and this statement is not remov-
entities requires a license agreement (SV)
or send an email to license@isb-sib.ch).
  1111
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                                                                                                    cyclase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00396; granulin; SMART; SM00277; GRAN; 6.
                                                                                                                         Gao B., Gilman A.G.;
                                                                                                                                   MEDLINE-92052234;
                                                                                                                                            TISSUE=Testis
                                                                                                                                                       SEQUENCE FROM
                                                                                                                                                                                                         Rattus norvegicus
                                                                                                                                                                                                                                                                                        CYA4_RAT
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                                                                                                              "Cloning and expression
                                                                                                                                                                                                                            (Adenylyl cyclase).
                                                                                                                                                                                                                                                                                                                                          437
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                                                                                                                                                                                                                                                                                                             41
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                             CATALYTIC ACTIVITY: ATP = 3',5'-cyclic AMP ENZYME REGULATION: INSENSIBLE TO CA(2+)/CAL THE G PROTEIN BETA & GAMMA SUBUNIT COMPLEX: SUBCELLULAR LOCATION: Integral membrane pro-
TISSUE SPECIFICITY: WIDELY DISTRIBUTED.

DOMAIN: COMPOSED OF TWO HOMOLOGOUS DOMAINS.

SIMILARITY: BELONGS TO ADENYLYL CYCLASE CLASS-4/GUANYLYL CYCLASE
                                                                                FUNCTION:
                                                                                                                                                                                                                                                                                                                                                              GEMSLEEHSQC----ECRPK
                                                                                                                                                                                                                                                                                                                                                                                                                         LLQVPWAQKTPAQPSRPSQPSPPGPPGPPSPPGPLRSEISCDEV---VSCRPGNI-----
                                                                                                                                                                                                                                                                                                                                                                                                     VELMGTVAKQLVPSCVTVQRCGGCCP-DDGLECVPTGQHQVRMQILMIRYPS----
                                                                                                                                                                                                                                                                                                                                          TDVGCDQHASCPVRQTCCPK
                                                                                                                                                                                                                                                                                                                                                                                                                                           LLLAALLQLAPAQ------APVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLT
                                                                                           Natl. Acad.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PS00799;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Repeat; Signal;
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7111
206
206
281
7376
439
7518
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                                                                                                                                                       N.A.
                                                                                THIS
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                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                            Sci.
                                                                                                                                  PubMed=1946437;
                                                                                                                                                                                                        (Rat).
                                                                                                                                                                                                                                    23, Created)
23, Last sequence update)
39, Last annotation update)
, type IV (EC 4.6.1.1) (ATP pyrophosphate-lyase)
                                                                                                                                                                                                                                                                                                                                                                                   -CCRLASGEWGCCPSSEGYLCMAGERCQVGDRLAPEKMAAHLMSLSQT 436
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798
7164
261
335
7415
7494
7569
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                                                                                 A MEMBRANE-BOUND,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10.1%;
22.1%;
                                                                              U.S.A. 88:10178-10182(1991).
EMBRANE-BOUND, CALMODULIN-INSENSITIVE ADENYLYL
                                                                                                             of a widely
                                                                                                                                                                                                                                                                                                                                                              127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Glycoprotein
                                                                                                                                                                                                                                                                                                                                          456
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 72.5; D
Pred. No. 5.2;
L7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACROGRANIN.
GRANULIN 1.
GRANULIN 2.
GRANULIN 3.
GRANULIN 4.
GRANULIN 5.
GRANULIN 6.
GRANULIN 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GRANULIN
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     σ
                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
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                                                    /CALMODULIN.
                              protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1;
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                                                                                                              (type
                                                             diphosphate
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                                                                                                              IV)
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                                                    STIMULATED
                                                                                                              adenylyl
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41;
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RESULT
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Best Local S
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096433;
16-OCT-2001 (Rel. 40, C
16-OCT-2001 (Rel. 40, L
16-OCT-2001 (Rel. 40, L
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                                Eukaryota; Metazoa; Arthrop
Pterygota; Neoptera; Endopt
Ephydroidea; Drosophilidae;
                                  Drosophila melanogaster (Fruit fly).

Bukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;

Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Musc

Ephydroidea; Drosophilidae; Drosophila.
                                                                                              Cyclin T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00452; GUANYLATE_CYCLASES_1; PROSITE; PS50125; GUANYLATE_CYCLASES_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR001054; Guanylt_cyclase Pfam; PF00211; guanylate_cyc; 2. SMART; SM00044; CYCC; 2.
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SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                     EVVVPLTVELMG----TVAKQLVPSCVTVQRCGGC------CPDDGLECVPTGQHQV
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Pred. No. 9.4;
19; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nembrane; Glycoprotein; Duplication CYTOPLASMIC (POTENTIAL).
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                                             Brachycera; Muscomorpha;
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RESULT 43
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Best Local :
                                                                                                     HXB2_HUMAN STANDARD; PRT; 356 AA. P14652; P17485; P10913; 01-APR-1990 (Rel. 14, Created) 01-APR-1990 (Rel. 14, Last sequence update) 01-OCT-1996 (Rel. 34, Last annotation update) Homeobox protein Hox-B2 (Hox-2H) (Hox-2.8) (KI HOXB2 OR HOXEH)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cyclin;
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DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
DOMAIN
MEDLINE=90098876; PubMed=2574852; Acampora D., D'Esposito M., Faiella A.,
                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00134; cyclin; SMART; SM00385; CYCLIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FlyBase; FBgn0025455; CycT. InterPro; IPR000553; Cyclin.
                          SEQUENCE FROM N.A.
                                                    NCBI_TaxID=9606;
                                                                                             Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Drosophila P-TEFb.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peng J.-M., Marshall N.F., Price D.H.;
"Identification of a cyclin subunit re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=98256315; PubMed=9593731;
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FUNCTION: REGULATORY SUBUNIT OF THE CYCLIN-DEPENDENT KINASE PAIR (CDK9/CYCLIN T) COMPLEX, ALSO EALLED POSITIVE TRANSCRIPTION ELONGATION FACTOR B (P-TEFB), WHICH IS PROPOSED TO FACILITATE THE TRANSITION FROM ABORTIVE TO PRODUCTION ELONGATION BY PHOSPHORYLATING THE CTD (CARBOXY-TERMINAL DOMAIN) OF THE LARGE SUBUNIT OF RNA POLYMERASE II (RNAP II).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY: BELONGS TO THE CYCLIN FAMILY. CYCLIN C SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBUNIT: ASSOCIATES WITH CDK9 TO FORM P-TEFB
                                                                                                                                                                                                                                                                                    QCECRPKKKD
                                                                                                                                                                                                                                                                                                                                         MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS
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Primates;
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POLY-SER.
POLY-SER.
POLY-PRO.
POLY-GLN.
POLY-LYS.
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Pred. No. 9
                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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 Pannese M.,
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InterPro; IPR001827; Antennapedia.
InterPro; IPR001356; Homeobox.
Pfam; PF00046; homeobox; I.
PRINTS; PR00025; ANTENNAPEDIA.
PRINTS; PR00024; HOMEOBOX.
SMART; SM00389; HOX; I.
PROSITE; PS00027; HOMEOBOX_1; 1.
PROSITE; PS00033; ANTENNAPEDIA; 1.
PROSITE; PS00033; ANTENNAPEDIA; 1.
PROSITE; PS00031; HOMEOBOX_2; 1.
                                                                                                                                                                                                          EMBL; X16665; CAA34655.1; -
EMBL; X16176; CAA34298.1; -
EMBL; X16571; CAA32709.1; -
EMBL; X78978; CAA55581.1; -
PIR; S07542; WJHU2H.
PIR; E37042; E37042.
HSSP; P14653; 1B72.
TRANSFAC; T03323; -
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                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content modified and this statement is not removed. Usage by ar
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Transcription factor GATA-1 regulates human HOXB2 erythroid cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Boncinelli E., Acampora D., Pannese Gaudino G., Stornaiuolo A., Cafiero "Organization of human class I homec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 143-208 FROM N.A. MEDLINE=90215256; PubMed=2576652;
                                                                                                                                                                                                    MIM;
                                                                                                                                                                                                                                                                                                                                                       or send an email to license@isb-sib.ch).
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                            Transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                    between
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE OF 1-42 FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kongsuwan K., Webb E., Housiaux P., Adams J.M.; "Expression of multiple homeobox genes within diverse mammalian
                                            Homeobox; DNA-binding; Developmental protein; Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-95181447; PubMed-7876223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                haemopoietic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Biol. Chem. 270:4544-4550(1995). - FUNCTION: SEQUENCE-SPECIFIC TRA
                                                                                                                                                                                                                                                                                                                                                                                                    s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5-9 WEEKS FROM CONCEPTION. SIMILARITY: BELONGS TO THE ANTP FAMILY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A DEVELOPMENTAL REGULATORY SYSTEM THAT PROVIDES CELL SPECIFIC POSITIONAL IDENTITIES ON THE ANTERIOR-POSTE SUBCELLULAR LOCATION: Nuclear.

DEVELOPMENTAL STAGE: EXPRESSED IN WHOLE EMBRYOS AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROBOSCIPEDIA SUBFAMILY.
                                                                                                                                                                                                  142967;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nan HOX gene family.";
Acids Res. 17:10385-10402(1989).
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                                                                                                                                                                                                                                                                                                                                                                     requires a license agreement
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                              regulation.
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ANTP-TYPE HEXAPEPTIDE HOMEOBOX.
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                                            protein;
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RESULT 44
SM3C_MOSE
ID SOUCH
ID GALL
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InterPro; IPR003006;
InterPro; IPR003659;
InterPro; IPR001627;
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Q62181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAY-2000 (Rel. 39, Created)
16-OCT-2001 (Rel. 40, Last annotation update)
Semaphorin 3C precursor (communication)
                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for commodified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Neuron 14:941-948(1995).

-i- FUNCTION: INHIBITS AXONAL EXTENSION BY PROVIDING LOCAL SIGNACTION: INACCESSIBLE FOR GROWING AXONS.

-i- SUBCELLULAR LOCATION: Secreted (By similarity).

-i- DEVELOPMENTAL STAGE: EXPRESSED FROM DAY 10 IN THE EMBRYO.

EXPRESSION BETWEEN DAYS 10-12 WITH MODERATE LEVELS FROM DAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-NMRI; TISSUE-Embryo;
MEDLINE-95267431; PubMed-7748561;
Pusschel A.W., Adams R.H., Betz H.;
"Murine semaphorin D/collapsin is a member of a diverse gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                        Pfam; PF00047; ig; 1. Pfam; PF01403; Sema;
                                                                                                                                                                                                                                                                                                                                                                                                                    entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEMA3C
                                                                                                                                       Signal;
                                                                                                                                                                  SMART;
                                                                                                                                                                                     SMART;
                                                                                                                                                                                                                                                                                                                                                  EMBL; x85994; CAA59986.1; MGD; MGI:107557; Sema3c.
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SIMILARITY: CONTAINS 1 SEMA DOMAIN.
SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               creates domains inhibitory for axonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  UNTIL BIRTH.
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SM00423; PSI; 1.
Immunoglobulin domain; Multigene
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D7ACA0E3D5BEBFB9 CRC64;
  IG-LIKE C2-TYPE POLY-GLN.
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Matches 28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YLOO_MYCTU STANDARD; PRT; 550 AA. Q10709; 01-OCT-1996 (Rel. 34, Created) 01-OCT-1996 (Rel. 34, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation update) Hypothetical 58.9 kDa protein Rv2100 precursor. Rv2100 OR MT2160 OR MTCY49.40.

Mycobacterium tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN-CDC 1551 / Oshkosh;
Fleischmann R.D., Alland D., Eisen J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
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                                                         the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for conmodified and this statement is not removed.
                                                                                                                                                                                                                              "Whole genome comparison of Mycobacterium tuberculosis clinical and laboratory strains.";
Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.
-i- SIMILARITY: STRONG, TO M.TUBERCULOSIS RV3776.
                                  entities requires a license agreement (See http://www.isb-sib.ch/announce,
                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                   Fleischmann R.D., Alland D., Eisen J.A., Carpenter L., White O., Peterson J., DeBoy R., Dodson R., Gwinn M.L., Haft D., Hickey E., Kolonay J.F., Nelson W.C., Umayam L.A., Ermolaeva M.D., Salzberg Delcher A., Utterback T., Weidman J., Khouri H., Gill J., Mikula
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NCBI_TaxID=1773;
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an email
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        to license@isb-sib.ch).
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Pfam; PF01844; HNH; 1.
SMART; SM00507; HNHc; 1.
SMART; SM00507; HNHc; 1.
Complete Hypothetical protein; Signal; Complete POTENTIAL.
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270
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les 38; Conserv
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                                                                MGTVA---KQLVPSCVTVQR-----CGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLG
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ALAAGADHLACGCG-----
                      EMSL-EEHSQCECRPKKKDSAVKPD 136
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26.2%;
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Search completed: September 10, 2002, 02:57:35 Job time: 493 sec

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Result
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      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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sp_bacteriap:*
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Q96NW5
1 Q73682
1 Q73682
1 Q42571
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Q91ZE1
                                Q9BDP7
Q9MZB1
Q9GK00
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      Q9ERL6
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                                                                                    Q951q4 felis silve
Q951zel rattus norv
Q9qx39 spalax leuc
Q96182 homo sapien
Q96kj0 homo sapien
Q95ne5 macaca fasc
Q77643 ovis aries
Q73822 brachydanio
Q96nw5 homo sapien
Q96nw5 homo sapien
Q73682 brachydanio
Q42571 xenopus lae
Q42572 xenopus lae
Q9bqp7 macaca mula
                             Q9bdp7 macaca mul
Q9mzb1 ovis aries
Q9gk00 callithrix
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Q9er16 mesocricetu
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16.0	16.7	16.8	17.0	17.0	17.1	17.1	17.4	17.4	17.7	17.7	17.7	18.7	19.2	19.2	19.6	20.4	20.4	20.7	•		•	•	•	•		•	27.8	•
195	211	149	198	194	226	185	251	211	210	196	118	301	325	314	420	415	326	418	68	326	110	141	132	75	123	78	146	146
13	13	#	13	13	4	4	13	13	σ	11	11	σı	G	5	6	11					11	11	12	σ	6	σ	13	13
Q9DE50	Q9PUF7	09WV07	Q90WK3	Q90WK1	Q9UF23	Q15354	Q90W23	Q90WK2	Q29613	Q99L56	Q9CU96	Q9VWP6	Q960Z8	Q9BLX1	Q9xs50	Q91ZE3	Q91ZH6	057352	097500	Q91ZE4	088911	070123	Q9YMF3	018843	Q9N1S1	Q9N1S2	Q90X24	Q90x23
-	Q9puf7 gallus gall	mesocr	Q90wk3 gallus gall	gallus	nomo saj	nomo sa		Q90wk2 gallus gall	Q29613 felis silve	Q99156 mus musculu	g,			Q9blx1 drosophila	Q9xs50 bos taurus		Q91zh6 meriones un	N	0	Q91ze4 rattus norv	O88911 rattus norv	070123 mus musculu	w	O18843 oryctolagus		a		bothrops

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Best Local Similarity
Matches 56; Conserv
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Q95LQ4;
                                                                                                                                                                                                                                                               growth factor.";
Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AB071947; BAB68520.1; -.
SEQUENCE 189 AA; 22193 MW; C1E4646759AB3FD6 CRC64;
                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. KODAYAShi Y., Yazawa M., Masuda K., Ohno K., Tsujimoto H.; KODAYAShi Y., Yazawa M., Masuda K., Ohno K., Tsujimoto H.; "Nucleotide sequence and expression of the feline vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                  Felis silvestris catus (Cat).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;

Mammalia; Eutheria; Carnivora; Fissipedia; Felidae;

MCBI_TaxID=9685;
                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-2001 (TrEMBLEE1. 19, Created 01-DEC-2001 (TrEMBLEE1. 19, Last se 01-DEC-2001 (TrEMBLEE1. 19, Last an YASCULAR ENDOTHELIAL GROWTH FACTOR.
132 KKDRAKENP 140
                             127 KKKDSAVKP 135
                                                             72
                                                                                          89
                                                                                                                                         10 LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ
                                                                                                                         12 LALLLYLHHAKWSQAAPMADGEHKPHEVVKFMDVYQRSYCRPIETLVDIFQEYPDEIEYI 71
                                                                            LVPSCYTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
                                                           FKPSCVPLMRCGGCCNDEGLECVPTEEFNITMQIMRIKPHQGQHIGEMSFLQHSKCECRP
                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                37.8%;
                                                                                                                                                                                     22;
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Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
                                                                                                                                                                                   Score 271.5; DB 6;
Pred. No. 2.7e-22;
2; Mismatches 48;
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                                                                                                                                                                                                                  Length
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Felis.
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Best Local
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01-MAY-2000 (TrEMBLrel. 13, Cr
01-MAY-2000 (TrEMBLrel. 13, La
01-JUN-2001 (TrEMBLrel. 17, La
VASCULAR ENDOTHELIAL GROWTH F/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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Q91ZE1;
                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Cloning of multiple VEGF splice variants from cardiomyocytes.";
Submitted (APR-2001) to the EMBL/GenBank/DDBJ (EMBL; AY033506; AAL07526.1; -.
SEQUENCE 190 AA; 22396 MW; 589374010441F37;
                                                                 InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
                                                                                                                                                         ehrenbergi: the role of vascular FEBS Lett. 452:133-140(1999). EMBL; AF186.336; AAD56245.1; -. HSSP; P15692; 2VPF.
                                                                                                                                                                                                                                                                                                                                                                                                         Spalax leucodon ehrenbergi (Ehrenberg's mole rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC 2001 (TremBLrel. 19, 01-DEC-2001 (TremBLrel. 19, 01-DEC-2001 (TremBLrel. 19, VASCULAR ENDOTHELIAL GROWTH
                                                                                                                                                                                                                                                  Avivi A., Resnick M.B., Nevo E., Jo
"Adaptive hypoxic tolerance in the
                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE-99313148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9QX39
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Marion S., Lee T.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=30637;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rattus norvegicus (Rat).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KK - - DRTKPE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57;
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PS00249; PDGF_1; 1.
PS50278; PDGF_2; 1.
190 AA; 22488 MW;
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                                                                                                                                                                                                                                                                                                 PubMed=10386577;
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Pred. No. 4.6e
21; Mismatches
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    2228383BC65F0BFE CRC64;
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he subterranean mole
endothelial growth 1
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RESULT

Q96KULT

Q96KULT

Q90KULT

Q90K
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Eukaryota; Metazoa;
Mammalia; Eutheria;
        "A new isoform
                                          TISSUE-KIDNEY;
                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
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EMBL; AY047581; AAK95847.1; ...
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01-DEC-2001
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      vascular endothelial growth
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Primates;
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Pred. No. 5.9e
Pred. Mismatches
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Pred. No. 1.9e-21
1; Mismatches 4
                                                                                                                        Craniata; Vertebrata; Catarrhini; Hominidae;
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S.J., but
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Q95NE5;
01-DEC-2001
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SIMVEGF165.
    077643;
077643;
01-NOV-1998
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"Cloning and mRNA expression of vascular endothelial ischemic retinas of Macaca fascicularis.";
Invest. Ophthalmol. Vis. Sci. 37:1334-1340(1996).
EMBL; 882167; AAB47118.1;
EMBL; 882167; AAB47118.1;
EMBL; S82167; AAB47118.1;
CCE57097DD3779BD CRC64
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PROCEEDINGS OF THE WORLD CONGRESS
Unknown Publisher (2001).
EMBL; AF430806; AAL27445.1; -.
SEQUENCE 191 AA; 22258 MW; D25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
Cercopithecinae; Macaca.
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54; Conservative
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(TrEMBLrel. 19, Last sequence up)
(TrEMBLrel. 19, Last annotation
       (TrEMBLrel. 08,
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                                                     PRELIMINARY;
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Pred. No. 1.9e
21; Mismatches
       Created
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Pred. No. 1.9e-21;
1; Mismatches 44
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Growth Factors 0:0-0(1998).
EMBL; AF071015; AAC23008.1; -.
HSSP; P15692; 1VGH.
InterPro; IPR000072; PDGF.
InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00248; PDGF_1; 1.
PROSITE; PS00278; PDGF_2; 1.
SEQUENCE 190 AA; 22342 MW;
EMBL; AROSS661; AAC14713.1; ...
HSSP: P15992; 2VPF.
InterPro; IPRO0072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS00249; PDGF_2; 1.
SEQUENCE 144 AA; 16479 MW;
                                                                                                                                                                                                                                                                                                                                                                               Brachydanio rerio (Zebrafish) (Zebra danio).
Eukaryota; Metazoa; Chordata; Craniata; Vert
Actinopterygii; Neopterygii; Teleostei; Eute
Cypriniformes; Cyprinidae; Danio.
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STRAIN=COLUMBIA-RAMBOULLIET;
Cheung C.Y., Brace R.A.;
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Mammalia; Eutheria; Ceta
Bovidae; Caprinae; Ovis.
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                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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"Vascular endothelial
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3; Mismatches 42
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Euteleostei;
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                                                                                                                                                                                                                                                                                                                          073682 PRELIMINARY;
073682;
01-AUG-1998 (TrEMBLrel. 07, C1
01-AUG-1998 (TrEMBLrel. 19, Le
01-DEC-2001 (TrEMBLrel. 19, Le
VASCULAR ENDOTHELIAL GROWTH F2
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Q96NW5;
Q1-DEC-2001
Q1-DEC-2001
Q1-DEC-2001
                                                                                                                              Brachydanio rerio (Zebrafish) (Zebra dan Eukaryota; Metazoa; Chordata; Craniata; Actinopterygii; Neopterygii; Teleostei; Cypriniformes; Cyprinidae; Danio.
NCBI_TaxID-7955;
   MEDCINE-98222600;
Liang D., Xu X.,
                                                                                                                                                                                                                                                                                                      VEGF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rieder M.J., Armel T.2., Carrington D.P., Chung M.-W., Poel C.L., Toth E.J., Y1 Q., Nickerson D.A.; Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases EMBL; AF437895; AAL27630.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                                                       SEQUENCE FROM N.A.
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      Chin
PubMed=9545518;
Chin A.J., Balasubramaniyan
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Primates;
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Last sequence update)
Last annotation updat
FACTOR ISOFORM 165.
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FACTOR (FRAGMENT).
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Pred. No. 6.4e-21;
7; Mismatches 52;
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ta; Vertebrata;
ei; Euteleostei;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      188
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.8e-21;
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165.
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Matches 54
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01-JAN-1998
01-DEC-2001
                                                                                                                                    PROSITE;
PROSITE;
SEQUENCE
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042571;
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SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF-1; 1.
PROSITE; PS50278; PDGF-2; 1.
SEQUENCE 188 AA; 21756 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (VEGF) from zebrafish, Danio rerio.",
Biochim. Biophys. Acta 1397:14-20(1998).
EMBL; AF016244; AAC41274-1; -.
HSSP; P15692; 1VGH.
ZFIN; ZDB-GENE-990415-273; vegf.
Interpro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
                                                                                                                                                                    InterPro; IPR000072; PDGF. Pfam; PF00341; PDGF; 1. ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                           "Neovascularization of the Dev. Dyn. 0:0-0(1997). EMBL; AF008593; AAB63679.1;
                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; C
Amphibia; Batrachia;
Xenopodinae; Xenopus.
                                                                                                                                                                                                                 HSSP; P15692; 1VPP.
                                                                                                                                                                                                                                                              Cleaver O.,
                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                               Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata;
                                                                                                                                                                                                                                                                                                                                                                 VASCULAR ENDOTHELIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Weinberg E.S., Ge R.;
"Cloning and characterization of vascular
"Therefore Danie rerio.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                124 CRPK-----KKDSAVKP 135
|||| ||: :|
127 CRPKAEVKAKKENHCEP 143
           66
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           KQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCEC
                                 LAVLLYIPHAQLSGAAP-MPGEGDHKPTEVVKFLKVYERSMCQVREILVDIFQEYPDEVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EHTYIPSCVVLMRCAGCCNDEALECVPTETRNVTMEVLRVKQRVSQHNFQLSFTEHTKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLG-EMSLEEHSQCE 123
                                                                                        Similarity
                                                                                                                                    PS00249; PDGF_1; 1.
PS50278; PDGF_2; 1.
148 AA; 17234 MW;
= = = = =
                                                                                                                                                                                                                                                            Tonissen K.F.,
                                                                                                                                                                                                                                                                                                                                                                             (TrEMBLrel.
                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
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                                                                                                                                                                                                                             AAB63679.1;
                                                                                       35.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              35.5%;
                                                                                                                                                                                                                                                                                                                      Anura; Mesobatrachia;
                                                                                                                                                                                                                                                                                                                                                                 GROWTH
                                                                                                                                                                                                                                                                                                                                                                           05,
19,
                                                                                                                                                                                                                                                  Saha M.S., Krieg P.A.;
Xenopus embryo.";
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                                                                                                                                                                                                                                                                                                                                                                                                    Created)
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Pred. No. 1.8e
29; Mismatches
                                                                                        Score
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                                                                                                                                     4AD153CA2F8B1E95 CRC64;
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                                                                              Mismatches
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No. 2.4e-20;
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                                                                                                                                                                                                                                                                                                                                Vertebrata;
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L.8e-20;
nes 51;
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             124
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Best Local
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042572;
01-JAN-1998
01-JAN-1998
01-DEC-2001
SEQUENCE FROM N.A.
HAZZATG T.M., Nayak N.R., Jia Y., S
"Rhesus macaque VEGF mRNA sequence.
Submitted (JAN-2001) to the EMBL/Ge
EMBL; AF339737; AAK26379.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cleaver O., Tonissen K.F., (
"Neovascularization of the )
Dev. Dyn. 0:0-0(1997)
EMBL; AF008594; AAB63680.1;
HSSP; P15692; 1VGH.
                                                                                                                                                                                                                                                                                                             Macaca mulatta (Rhesus macaque).
Eukaryota; Metazoa; Chordata; Cr
Mammalia; Eutheria; Primates; Ca
                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUN-2001 (TremBirel. 17, Created)
01-JUN-2001 (TremBirel. 17, Last sequence update)
01-JDEC-2001 (TremBirel. 19, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9BDP7;
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xenopus laevis (African clawed frog). Ven
Eukaryota; Metazoa; Chordata; Craniata; Ven
Amphibla; Batrachia; Anura; Mesobatrachia;
Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9BDP7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
SEQUENCE 194 AA; 22672 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMART; SM00141; PDGF; 1.
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Pfam; PF00341; PDGF; 1.
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                                                                                                                                                                                                                                                                                    Cercopithecinae;
                                                                                                                                                                                                                                           NCBI_TaxID=9544;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProDom;
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(TrembLrel. 05, Last sequence up)
(TrembLrel. 19, Last annotation)
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                                                                                                                                                                                                                                                                                    Macaca.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35.2%;
43.2%;
                                                                                               Jia Y., Stouffer R.L.; sequence.":
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Xenopus embryo.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21;
                                         EMBL/GenBank/DDBJ databases
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Pred.
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No. 3.2e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                126 AA
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; Pipidae;
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62 86

GLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK

128

SLECVPTEEFNITMQIMRIKPHQSQHIGEMSFLQHNKCECRPKK 105

28

Conservative

21;

Indels

ω ••

Gaps

2

61 85

APGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDD

AEGGQKPHEVMKFMDVYQRSFCRPIETLVDIFQEYPDEIEFIFKPSCVPLMRCGGCCNDE

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RESULT
Q9MZB1
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Best Local
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Best Local
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01-OCT-2000
01-DEC-2001
                                                                  NON_TER
SEQUENCE
                                                                                        Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                           Ovis aries (Sheep).
Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Cetartioda
Bovidae; Caprinae; Ovis.
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SEQUENCE
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proDom; PD001629; PDGF; 1.
smarr; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                        Submitted (MAR-2000) to the EMBL; AF250375; AAF75258.1; HSSP; P15692; IVPP.
                                                                                                                                                                                                                             TISSUE-PLACENTAL ARTERY ENDOTHELIUM;
Zheng J., Tsoi S.C., Magness R.R.;
"Growth factor expression in ovine f
                                                                                                                                                                                                                    cells."
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9MZB1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR000072;
Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                                         SEQUENCE FROM
                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9940;
                                                                                                                                                                                                                                                                                                                                                                                 VASCULAR ENDOTHELIAL GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9MZB1;
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                                                                                                                                                             InterPro; IPR000072; PDGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR
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l Similarity
47; Conserv
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52; Conser
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126 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                        N.A.
                                                                   AA;
                                                                                                                                                                                                                                                                                                           a; chordata; Craniata; Vertebrata; Euteleostomi;
1; Cetartiodactyla; Ruminantia; Pecora. por Ovis.
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14599 MW;
                                                                   13931 MW;
           34.3%;
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                                                                                                                                                                                                                                                                                                                                                                              Last sequence update)
Last annotation updat
FACTOR (FRAGMENT)
Score 246.5;
Pred. No. 9.7e
21; Mismatches
                                                                                                                                                                                                    EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
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Pred.
                                                                                                                                                                                                                                  ovine fetal
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                                                                   757DC53AA56378A6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            250; DB 6;
No. 4.3e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    118
7e-20;
1es 33;
                                                                                                                                                                                                                                placental artery
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                         DB 6;
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                         Length
                            118;
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                                                                                                                                                                                                                                  endothelial
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RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OF RESULT OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OPERLO OP
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Best Local S
Matches 44
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"growth factor expression in marmoset monkey oviducts.";

Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.

EMBL; AJ278192; CAC19923.1; -.

HSSP; P15692; 1VCH.

InterPro; IPR000072; PDGF.

Pfam; PF00341; PDGF; 1.

PRODOM; PD001629; PDGF; 1.

SMART; SM00141; PDGF; 1.

PROSITE; PS00249; PDGF_1; 1.

PROSITE; PS00249; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9ERL6;
01-MAR-2001
01-MAR-2001
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NON_TER
NON_TER
SEQUENCE
                                                                                                                   Ramesh G., Kondaiah P., Seshagiri P.B.; Regulation of expression of transforming growth strovid hormone in the hamster uterus."; Submitted (AUG-2000) to the EMBL/GenBank/DDBJ datEMBL; AF297627; AAG16241.1; -. HSSP; P15692; IVPP.
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01-MAR-2001 (TrEMBLrel. 16,
01-MAR-2001 (TrEMBLrel. 16,
01-DEC-2001 (TrEMBLrel. 19,
  SMART; SM00141;
PROSITE; PS00249
                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2001 (TremBLrel. 16, Created)
01-MAR-2001 (TremBLrel. 16, Last sequence update)
01-DEC-2001 (TremBLrel. 19, Last annotation updat-
VASCULAR ENDOTHELIAL GROWTH FACTOR VEGF (FRAGMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Callithrix jacchus (Common marmoset).
Eukaryota; Metazoa; Chordata; Craniat
Mammalia; Eutheria; Primates; Platyrr
                                                 ProDom;
                                                                                                                                                                                                                                                                                                                                        Mesocricetus
                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                  Mesocricetus auratus (Golden hamster).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9ERL6
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                                                                    InterPro; IPR000072; PDGF, Pfam; PF00341; PDGF; 1.
                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                           NCBI_TaxID=10036;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VASCULAR ENDOTHELIAL
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                                              PD001629; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 124
124 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
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                      PDGF; 1.
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; 14548 MW;
PDGF_1;
                                                                                                                                                                                                                                                                                                                                                               Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33.9%;
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Pred.
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                                                                                                                                                                                                                                                                                                                                                          Sciurognathi;
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No. 2.2e-19;
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Best Local S
Matches 42
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Best Local
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01-DEC-2001
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NON_TER
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SEQUENCE
                      01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR.
Bothrops insularis (Island jararaca) (Queimada jararaca)
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eute-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q90x23;
   Viperidae; Crotalinae;
                                                                                                   Q90x24;
                                                                                                                Q90X24
                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=21523945; PubMed=11517227;
Junqueira de Azevedo I.L.M., Farsky S.H.P., Oliveira M.L.S., H
Junqueira de Azevedo I.L.M., Farsky S.H.P., Oliveira M.L.S., H
"MOlecular Cloning and Expression of a Functional Snake Venom
Endothelium Growth Factor (VEGF) from the Bothrops insularis P
Viper. A New Member of the VEGF Family of Proteins.";
J. Biol. Chem. 276.39836-39842(2001).
EMBL; AY033152; AAK52103.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-DEC-2001 (TrEMBLrel. 19, Last sequence of DEC-2001 (TrEMBLrel. 19, Last annotat VASCULAR ENDOYHELLAL GROWTH FACTOR PRECU Bothrops jararaca (Jararaca). Craniata; Eukaryota; Metazoa; Chordata; Craniata; Lepidosauria; Squamata; Scleroglossa; Se Viperidae; Crotalinae; Bothrops.
                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                Sepidosauria; Squamata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-VENOM GLAND;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=8724;
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                                                                                                                                                                                                                                         QRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVP 91
                                                                                                                                                                            TGKRSVGREIMRLSPHKGTSEKEVMQFTEHTDCECRPR
                                                                                                                                                                                                TGQHQVRMQILMI--RYPSSQLGEMSLEEHSQCECRPK
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142 AA;
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                                                                                       (TrEMBLrel.
                                                                                                                 PRELIMINARY;
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16621 MW;
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   Bothrops.
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19,
                Scleroglossa;
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Last annotation updat
FACTOR PRECURSOR.
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Pred. No. 2.5e
15; Mismatches
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VASCULAR ENDOTHELIAL GROWTH FACTOR

; 451EEF514EA9408E CRC64;
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               Serpentes; Colubroidea;
                             Vertebrata; Euteleostomi;
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om Vascular
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Q9N1S2;
Q1-OCT-2000
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MEDLINE-21533945; Pubmed-11517227;

Junqueira de Azevedo I.L.M., Farsky S.H.P., Oliveira M.L.S., Ho P.L.;

"Molecular Cloning and Expression of a Functional Snake Venom Vascular Endothelium Growth Factor (VEGF) from the Bothrops insularis Pit Viper. A New Member of the VEGF Family of Proteins.";

J. Biol. Chem. 276:39836-39842(2001).
                                                                                                                                                                                                                                                   NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Capreolus capreolus (Roe deer).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Cervoide;

Cervidae; Odocoileinae; Capreolus.
                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR000072; PDGF. Pfam; PF00341; PDGF; 1. ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
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Anim. Reprod. Sci. 64:65-75(2000).
EMBL; AF152593; AAF73232.1; -.
HSSP; P15692; 2VPF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-OCT-2000 (TrEMBLrel. 15, 01-OCT-2000 (TrEMBLrel. 15, 01-DEC-2001 (TrEMBLrel. 19, VASCULAR ENDOTHELIAL GROWTH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-20532861; PubMed-11078967; Wagener A., Blottner S., Goritz F., Wagenetion of growth factors in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=8723;
[1]
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Local Similarity 36...
38; Conservative
                                                                                                                                                    Local
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                                                  PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
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                     PSCVPLMRCGGCCNDESLECVPTEEFNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK
                                                                                                                         Similarity 55.(
33; Conservative
                                                                                                                                                                                                                                                                                                                        PS00249; PDGF_1; 1.
PS50278; PDGF_2; 1.
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25
146
                                                                                                                                                                                                                                                   78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                   78
8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,
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146 V
16356 MW;
                                                                                                                                                                                                                                                   78
9131 MW;
                                                                                                                                                 27.3%;
55.0%;
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38.8%;
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Last sequence update)
Last annotation update)
FACTOR ISOFORM 121 (FRA
                                                                                                                       Score 196.5;
Pred. No. 2.26
1; Mismatches
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Pred. No. 1.7e-14;
9; Mismatches 39;
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VASCULAR ENDOTHELIAL GROW
, 066FC5100CF46331 CRC64;
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testis
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                                                                                                                       ; DB 6;
.2e-14;
es 15;
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                                                                                                                                                                                                                                                   CRC64;
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                                                                                                                                                                         78;
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DR RETERMENT
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STRAIN-NEW ZEALAND WHITE; TISSUE-SKELETAL MU
STRAIN-NEW ZEALAND WHITE; TISSUE-SKELETAL MU
MEDLINE-98191144; PubMed-9530113;
Skorjanc D., Jaschinski F., Heine G., Pette
"Sequential increases in capillarization and
low-frequency-stimulated rabbit muscle.";
Am. J. Physiol. 274:C810-C818(1998).
EMBL; AF022179; AAC15469.1; -.
EMBL; AF022179; AAC15469.1; -.
HSSP; P15692; 2VPF.
InterPrO; IPRO00072; PDGF.
Pfam; PPG00141; PDGF; 1.
SMART; SM00141; PDGF; 1.
SMART; SM00141; PDGF; 1.
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Q9N1S1;
01-OCT-2000 (TrEMBLrel. 15, C)
01-OCT-2000 (TrEMBLrel. 15, L;
01-DEC-2001 (TrEMBLrel. 19, L;
VASCULAR ENDOTHELIAL GROWTH F)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NON_TER
SEQUENCE
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Anim. Reprod. Sci. 64:65-75
EMBL; AF152594; AAF73233.1;
HSSP; P15692; IVGH.
                                                                                                                                                                                                                                               Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolao
                                                                                                                                                                                                                                                                                                                01-JAN-1998 (Tremblrel. 05, 01-JAN-1998 (Tremblrel. 05, 01-JUN-2001 (Tremblrel. 17, VASCULAR ENDOTHELIAL GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=20532861; PubMed=11078967; Wagener A., Blottner S., Goritz F. "Detection of growth factors in th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Capreolus capreolus (Roe deer).
Eukaryota; Metazoa; Chordata; Craniat
Mammalia; Eutheria; Cetaritodactyla;
Cervidae; Odocoileinae; Capreolus.
                                                                                                                                                                                                                                                                                                                                                                                 018843;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProDom;
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                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                  VEGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9858;
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                                                                                                                                                                                                                                 NCBI_TaxID=9986;
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1; PD001629; PDGF; 1.
SM00141; PDGF; 1.
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PS50278;
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123 t
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PDGF_2;
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data; Craniata; Vertebrata;
perminantia; Per
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Last annotation updat
FACTOR (FRAGMENT).
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Pred. No. 3.5e-14;
1; Mismatches 15
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testis
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of roe
                                                                                                                                                                                                                                                  Oryctolagus
                                                                                                                                                      D.;
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PS00249;

PDGF\_1;

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RESULT
070123
ID 07
AC 0'
AC 0'
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Best Local
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Best Local (
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EMBL; AF106020; AAD03735.1; -
HSSP; P15692; 1VPP,
InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
                                           070123
070123;
01-AUG-1998
01-AUG-1998
01-DEC-2001
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NON_TER
NON_TER
SEQUENCE
Mus musculus (Mouse)
Eukaryota; Metazoa; (
Mammalia; Eutheria;
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Meyer M., Clauss M., Lepple-Wienhues A., Waltenberger J.,
Meyer M., Clauss M., Larc C., Buettner M., Rziha H.J., Dehio
Augustin H.G., Ziche M., Larc C., Buettner M., Rziha H.J., Dehio
"A novel vascular endothelial growth factor encoded by orf virus,
VEGF-E, mediates angiogenesis via signalling through VEGFR-2 (KDF
not VEGFR-1 (Fit-1) receptor tyrosine kinases.";
                                     VEGF115.
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PROSITE; PS50278; PDGF_2; 1.
SEQUENCE 132 AA; 14763 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                  Parapoxvirus.
NCBI_TaxID=10258;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Orf virus
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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                                                                                                                                            VRMQILMIRYPSSQ-LGEMSLEEHSQCECRP 126
                                                                                                                           VTMQLMGASVSGGNGMQHLSFVEHKKCDCKP
                                                                                                                                                              TWSEVFENSGCKPRPMVFRVHDEHPELTSQRFNPPCVTLMRCGGCCNDESLECVPTEEAN 84
                                                                                                                                                                               SWIDVYTRATCOPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQ 96
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                                                                                                                                                                                                           Similarity
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                                            (TrEMBLrel.) (TrEMBLrel.) (TrEMBLrel.)
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                                                                                PRELIMINARY;
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Chordata;
Rodentia;
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36.3%;
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55.9%;
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17,
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Last sequence up
Last annotation
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Last annotation updat
FACTOR HOMOLOG VEGF-E
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Pred. No. 4.9e-13;
0; Mismatches 37
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Pred. No. 9.6e-14;
0; Mismatches 15
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Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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VEGF-E.
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Murinae; Mus
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Matches 37
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01-NOV-1998
01-NOV-1998
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PROSITE;
PROSITE;
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                                                             HSSP; P15692;
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Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF 1; 1.
PROSITE; PS50278; PDGF 2; 1.
SEQUENCE 141 AA; 15550 MW;
InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                       endothelial growth factor in the penis Biol. Reprod. 60:398-404(1999). EMBL, AF080594; AAC36708.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=95101726; PubMed=7803491; Sugihara T., Kaul S.C., Mitsui Y., Wadhwa R.; Sughhara de expression of multiple forms of VEGF is spontaneous immortalization of murine fibroblasts. Biochim. Biophys. Acta 1224:365-370(1994).
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Mammalia; Eutheria;
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InterPro; IPR000072; P
Pfam; PF00341; PDGF; 1
                                                                                                                                                                                                                     Burchardt M., Burchardt T., Chen M.W., Buttyan R., Shabsigh R.;
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Eukaryota; Metazoa; Cho
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                                                                                                                                                                                  "Expression of messenger ribonucleic acid splice variants
endothelial growth factor in the penis of adult rats and l
                                                                                                                                                                                                                                                              STRAIN-SPRAGUE-DAWLEY; TISSUE-PENIS; MEDLINE-99115228; PubMed-9916007;
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m of murine vascular endothelial
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SEQUENCE FROM N.A.

Inoue K., Kawabe Y., Kodama T

"Rabbit VEGF cDNA, partial.";

Submitted (NOV-1998) to the EI

EMBL; ABO20216; BAA36949.1;

HSSP; P15692; 2VPF.
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01-MAY-1999 (TrEMBLrel. 10,
01-MAY-1999 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
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Oryctolagus cuniculus (Rabbit).
Oryctolagus cuniculus (Rabbit).
Oryctolagus cuniculus (Rabbit).
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Eur. J. Blochem. 0:0-0(2001).
EMBL, AY032728; ARV65008.1; -
SEQUENCE 326 AA; 37106 MW; D7CAEE
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Kirkin V., Mazitschek R., Krishnan J., Stetten A., TULLINGER, STRAIN-SPRAGUE A., TULLINGER, STRAIN-SPRAGUE A., TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, TULLINGER, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, STRAIN-SPRAGUE, 
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Pred. No. 7.6e
15; Mismatches
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Sciurognathi;
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No. 1.6e-08;
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chi; Muridae; Murinae; Rat
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EMBL; Y15837; CAA75799.1; -.
HSSP; P15692; IVPP.
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Alitalo K., Le Douarin N.M.;
"Avian VEGF-C: cloning, embryonic
of the differentiation of VEGFR2
                                                                                                                                                                                                           SMART; SM00067; GHA; 1
SMART; SM00141; PDGF;
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Pfam; PF00341; PDGF; 1.
PRINTS; PR00438; GFCYSKNOT
ProDom; PD001629; PDGF; 1.
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Eukaryota; Metazoa; Chordata; Craniata;
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Pfam; PF00341; PDGF;
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AAHYNAEILKSIDTEWRKTQCMPREVCVDVGKEFGATTNTFFKPPCVSIYRCGGCCNSEG 169
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Similarity 47.5%;
28; Conservative
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Last annotation update)
FACTOR C PRECURSOR.
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Pred. No. 2.4e
L6; Mismatches
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VASCULAR ENDOTHELIAL GROWTH FACTOR

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01-DEC-2001
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01-DEC-2001
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Kirkin V., Mazitschek R., Krishnan J., Steffen A., Waltenberger J.,
Pepper M.S., Giannis A., Sleeman J.P.;
"Characterization of Indolinones which specifically inhibit VEGF-C-and
VEGF-D-induced activation of VEGFR-3 but not VEGFR-2.";
EUR. J. Biochem. 0:0-0(2001).
EMBL; AV032739; AAK96009.1;
SEQUENCE 415 AA; 46397 MW; 1EB677F5B260A525 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Brugla malay1 stimulates VEGF-C, a growth factor specific "Brugla malay1 stimulates VEGF-C, a growth factor specific lymphatic endothelium, by an indirect mechanism."; Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases. EMBL; AF432867; AAL28127.1; -.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; E
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
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15; Mismatches
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Last annotation update)
FACTOR C (FRAGMENT).
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Q9xS50;
01-NOV-1999
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Cetartiod
                         Eukaryota; Metazoa; Arthropoda; Trac
Pterygota; Neoptera; Endopterygota;
Ephydroidea: Drosophilldae; Drosophi
NCBI_TaxID-7227;
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EMBL; AB004275; BAA77687.1; -.

HSSP; P15692; 1VPP.

InterPro; IPR004153; CXCXC.

InterPro; IPR00072; PDGF.
                                                                                                                                    Drosophila
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                                                                                                     melanogaster (Fruit fly).
Metazoa; Arthropoda; Trac
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ACTOR-1 PRECURSOR.
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InterPro; IPR004153; CXCXC.
InterPro; IPR000172; PDGF,
Pfam; PF03128; CXCXC; 3.
Pfam; PF03141; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
SMART; SM00141; PDGF; 1.
SMORT; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

STRAIN-Y, CN BW SP;

STRAIN-Y, CN BW SP;

Stapleton M., Brokstein P., Hong L., Agbayani A., Carlson J.,

Stapleton M., Brokstein P., Hong L., Agbayani A., Carlson J.,

Champe M., Chavez C., Dorsett V., Farfan D., Frise E., George R.,

Gonzalez M., Guarin H., Li P., Liao G., Miranda A., Mungall C.J.,

Nunco J., Pacleb J., Paragas V., Park S., Phouanenavong S., Wan K.

Yu C., Lewis S.E., Rubin G.M., Celniker S.;

Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.

EMBL; AY051751; AAK93175.1; -.

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CG7103.
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01-DEC-2001
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NCBI_TaxID=7227;
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Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;

Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
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VELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMI----
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                                                   TPLTLPLSVSAELTNVTADYDVSGEMPSSKENFKRSIMKSTVRNATPASCSPQPTIVELK 152
                                                                                                       SPLLRRLLLAALIQLAPAQAPVS - - QPDAPGHQRKVV - - SWIDVYTRATCQPREVVVPLT
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                                                                                                                                                              39;
                                                                                                                                                                                   Similarity
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t (TrEMBLrel. 19,
t (TrEMBLrel. 19,
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                                                                                                                                                              Conservative
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Last sequence update)
Last annotation update)
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Pred. No. 2.9e
29; Mismatches
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PDGF/VEGF FACTOR-1.

DE7771E7B2BD5EDD CRC64;
                                                                                                                                                                                 Score 138; DB 5; Pred. No. 3e-07;
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                                                                                                                                                           Mismatches
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.9e-07;
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                                                                                                                                                              61;
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                                                                                                                                                                                                         Length 325
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                                                                                                                                                           Indels
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---RYPSSQ 110
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                                                                                                                                                              RA SUTTON G.G., MORTHMAN J.R., YANDELLEY, NEURINGE, RA, BERANDON G.G., WORTHMAN J.R., YANDELLEY, NEURINGE, A., AND., Zhang Q., Chen L.X., RA BERANDON G.G., MORTHMAN J.R., YANDELY, BLAZEJ R.G., Champe M., Pfelffer B.D., RA BADIL J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C.R., Miklos G.L.G., RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M., RA Bellew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M., RA Bellew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M., RA Bellew R.M., Basu A., Baxendale J., Brokstein P., Brottier P., RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I., Chardy J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., RA Borkova D., Betchar A., Deng Z., Mays A.D., Dew I., Dietz S.M., RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P., RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P., RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M., Alaris N.L., Harvey D., Helman T.J., Hernandez J.R., Houck J., RA Harris N.L., Harvey D., Helman T.J., Hernandez J.R., Houck J., RA Harris N.L., Lavies F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A., RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z., Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X., RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X., RA Melson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M., RA Melson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M., RA Melson D.R., Nelson K.A., Nixon K., Sunders R.D.C., Scheeler F., Spen H., RA Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T., RA RA Melson D.R., Melson D.A., Weinstook G.M., Weissenbach J., RA Weinston R.N., Nondy M., Shon M., Zhang G., Zhao Q., Zhang L., Rang G., Zhao Q.,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAR-2001 (TrEMBLrel. 13,
01-DEC-2001 (TrEMBLrel. 16,
01-DEC-2001 (TrEMBLrel. 19,
CG7103 PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CG7103
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ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS50278; PDGF 2; 1.
SEQUENCE 301 AA; 33013 MW;
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01-MAY-2000
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                                                                                   EMBL; AE003510; AAF48892.2; FlyBase; FBgn0030964; Pvf1. InterPro; IPR000072; PDGF. Pfam; PF00341; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-20196006;
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Last annotation update)
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  4C45D988AAC9A5A9 CRC64;
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RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Salto T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Salto R.,
RA Salto T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Salto R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuchl P., Lewis S., Matsuo Y., Nikaldo I., Pesole G., Quackenbush J.,
RA Kuchl P., Lewis S., Matsuo Y., Nikaldo I., Pesole G., Quackenbush J.,
RA Kuchl P., Lewis S., Matsuo Y., Nikaldo I., Pesole G., Quackenbush J.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashiman M., Humazarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
Ra Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
Suzuki H., Toyo-oka K., Wang K.H., Welt Y., Storch K.-F.,
   Query Match
Best Local S
Matches 31
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Best Local
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01-JUN-2001
01-DEC-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUN-2001 (TIEMBLIEL 17, Last sequence update)
01-DEC-2001 (TIEMBLIEL 19, Last annotation update)
11 DAYS PREGNANT ADULT FEMALE OVARY AND UTERUS CDUA,
ENRICHED LIBRARY, CLONE:5033413018, FULL INSERT SEQUI
                                                                                                                                                                                                   PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                         SMART;
                                                                                                                                                                                                                                                                                           MGD; MGI:97527; Pdgfa. .
InterPro; IPR000072; PDGF. Pfam; PF00341; PDGF; 1. ProDom; PD001629; PDGF; 1.
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      . Similarity 31; Conser
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38; Conservative
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                                                                                                                                                     13551 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        full-length mouse
Score 127; DB 11;
Pred. No. 1:7e-06;
0; Mismatches 36;
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Pred. No. 6.9e-07;
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Sciurognathi; Muridae;
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; Murinae; Mus
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Best Local :
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Q29613;
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SEQUENCE
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01-JUN-2001
01-DEC-2001
PLATELET DER
                               SEQUENCE FROM N.A.

MEDLINE=87146463; PubMed=3822831;

wan den Ouweland A.M.W., van Groningen J.J.M.,

Van Neck H.W., Bloemers P.J., Van de Ven W.J.M.

"Genetic organization of the c-sis transcriptic
Nucleic Acids Res. 15:959-970(1987).
                                                                                                                                                                                                                               01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence up
01-JUN-2001 (TrEMBLrel. 17, Last annotation
C-SIS ONCOGENE (PLATELET-DERIVED GROWTH FACT
                                                                                                                                                                                              Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata;
                                                                                                                                                            NCBI_TaxID=9685
                                                                                                                                                                               Mammalia; Eutheria;
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EMBL; BC003817; AAHO:
HSSP; P01127; 1PDG.
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Mammalia; Eutheria;
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1-21
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Rodentia;
                                                                                                                                                                             Carnivora;
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31.3%;
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Pred. No. 2.
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; Fissipedia; Felidae;
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1es 36;
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                                                                                     Schalken J.A.,
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Felis.
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                                                                                                                                                                                                                                                                                                                                                                       O90WK2 PRELIMATION
O90WK2;
O90WK2;
O1-DEC-2001 (TrEMBLrel. 19, Created)
O1-DEC-2001 (TrEMBLrel. 19, Last sequence update)
O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)
O1-DEC-2001 (GROWTH FACTOR A CHAIN LONG FORM PRECURSOR.
                                                                                                  Signal.
SIGNAL
                                                                                                                                                          SEQUENCE FROM N.A.

MEDLINE=21363439; PubMed=11470524;

HORINCHI H., INDUE T., FURUSAWA S., MATSUDA H.;

"Characterization and expression of three forms o chicken platelet-derived growth factor-A chain.";

Gene 272:181-190(2001).
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                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                        Gallus gallus (Chicken).
Garvorta: Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1. SEQUENCE 210 AA; 23649 MW;
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ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
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InterPro; IPR000072;
Pfam; PF00341; PDGF;
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EMBL; X06297; CAA29623.1; -.
EMBL; X06298; CAA29623.1; JOINED.
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Claesen C.A.A., Bloemers
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                                                            SEQUENCE
                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                            Archosauria;
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; X06302; CAA29623.1
; X03494; CAA27210.1
; M25358; AAA30817.1
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x06300;
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34.8%;
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  17.48;
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Pred. No. 3.2e
18; Mismatches
                                                          POTENTIAL.
PDGF-A LONG FORM.
D32DE8E92BE43B08
  Score 125;
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3.2e-06;
nes 28;
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  13;
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01-NOV-1996
01-DEC-2001
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SIGNAL
CHAIN
                                                                                                                                                                   Q15354
TISSUE-CHORIOCARCINOMA;
MEDLINE-95380493; PubMed-7659502;
Dirks R.P.H., Onnekink C., Jansen
"A novel human c-sis mRNA species
sis intron 1 and contains the cod
                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-WHITE LEGHRON;
Horiuchi H., Inoue T., Furusav
"Cloning and character; zation
factor-B chain cDNA.";
                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                            ORF 2.
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                                                 SEQUENCE FROM N.A.
                                                                                                Homo sapiens (Human)
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251 AA;
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Primates;
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19,
, Jansen H.J., de Jong A., Bl
species is transcribed from
the code for an alternative
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Pred. No. 6.
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PDGF-B.
; 52B096C938C4298A CRC64;
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                                                                             Craniata; V
Catarrhini;
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CHAIN PRECURSOR.
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chicken p
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ches 36;
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                    Bloemers
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   a promoter
PDGF B-like
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RESULT
Q90WK1
ID Q90
AC Q90
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EMBL; Z81010; CAB625077.

HSSE; P01127; IPDG.

R InterPro; IPR000072; PDGF.

R Pfam; PF00341; PDGF; 1.

DR PRODOm; PD001629; PDGF; 1.

DR SMART; SM00141; PDGF; 1.

DR PROSITE; PS00249; PDGF_1; 1.

PROSITE; PS50278; PDGF_2; 1.

PROSITE; PS50278; PDGF_2; 1.
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Nucleic Acids Res. 23:2815-2822(1995).

KEMBL; X83705; CAA58679.1; -.

KHSSP; PO1127; 1PPG.

InterPro; IPR000072; PDGF.

R Pfam; PF00341; PDGF; 1.

R ProDom; PD001629; PDGF; 1.

R SMART; SM00141; PDGF; 1.

JR PROSITE; PS00249; PDGF 1;

JR PROSITE; PS00278; PDGF—2; 1.

JR PROSITE; PS00278; PDGF—2; 1.

JR PROSITE; PS00278; PDGF—2; 1.

JR PROSITE; PS00278; PDGF—2; 1.

JR PROSITE; PS00278; PDGF—2; 1.
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Best Loc
Matches
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Best Local 9
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Q90WK1;
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Q9UF23;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
CN10C3.1 (PLATELET-DERIVED GROWTH FACTOR BETA POLYPEPTIDE
CN10C3.1 (PLATELET-DERIVED GROWTH FACTOR BETA POLYPEPTIDE
                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                           Burgess J.;
Submitted (DEC-1999) to the
                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                            QVRKIEIVRKKPIFKKATVTLEDHLACKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCQPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MIR-----YPSSQLGEMSLEEHSQCEC 124
                                                                                                   MIR-----YPSSQLGEMSLEEHSQCEC 124
                                                                                                                            AECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRNVQCRPT--
                                                                                                                                                    ATCOPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRNVQCRPT----QVQLRPV 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 34.8
31; Conservative
                                                                                                                                                                                         Similarity
              PRELIMINARY;
                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (V-SIS) ONCOGENE HOMOLOG) (ISOFORM
                                                                                                                                                                                      17.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17;
                                                                                                                                                                              Score 123; DB
Pred. No. 9.5e
17; Mismatches
                                                                                                                                                                                                                                                                                                                                                            EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. 7.667; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
              PRT;
                                                                                                                                                                                                                                             523AC7394E29C0D5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A2BC585F88DFEE59
                                                                            165
              194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    226
                                                                                                                                                                        DB *,
9.5e-06;
29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4,
7.6e-06;
29;
             A
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                                                                                                                                                                                                                                                                                                                                                             databases
                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                             CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2)).
                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                        226;
                                                                                                                             -QVQLRPV 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SIMIAN
                                                                                                                                                                              12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12;
                                                                                                                                                                              Gaps
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Qy
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Q90WK3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
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Best Local S
Matches 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 29
                                                                                                                                                                                                                  PRECURSOR.

PRECURSOR.

PDGF-A (S1).

Gallus gallus (Chicken).

Gallus gallus, Metazoa; Chordata; Craniata; Vertebrata; Eutereukaryota; Metazoa; Chordata; Galliformes; Phasianidae;
                                                                                                                                                                                                                                                                                                                                              Q90WK3;
Q90WK3;
01-DEC-2001
                                                                                                     Signal.
SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Signal.
SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PDGF-A (S2).

Gallus gallus (Chicken).

Gallus gallus (Chicken).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota; Metazoa; Neoqnathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                 MEDLINE=21363439; PubMed=11470524;
Horiuchi H., Inoue T., Furusawa S., Matsud
"Characterization and expression of three
chicken platelet-derived growth factor-A c
Gene 272:181-190(2001).
                                                                                                                                                                                                                                                                                                           01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
PLATELET-DERIVED GROWTH FACTOR A CHAIN SHORT FORM T
                                                                                          SEQUENCE
                                                                                                                                      EMBL; AB031021; BAB62540.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AB031023; BAB62542.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chicken platelet-derived growth factor-A Gene 272:181-190(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
PLATELET-DERIVED GROWTH FACTOR A CHAIN SHORT FORM T
                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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MEDLINE=21363439; PubMed=11470524;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                            153
                                                                                                                                                                                                                                                                                                                                                                                                                                                   102
           45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94 AVCKTRTVIYEIPRS-QIDPTSANELIWPPCVEVKRCTGCCNTSSVKCQPSRIHHRSVKV 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              45
          ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                                                                                                                                                                                                                                                                                                                                                                                         LMIRY----PSSQLGEMSLEEHSQCECRPKKKDS
                                                                                                                                                                                                                                                                                                                                                                                                                           AKVEYVRKKPKLKEVLVRLEEHMECTCTSTNTNS
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                                  L Similarity
29; Conserv
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29; Conserv
                                                                                     1
87
198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17.0%;
nilarity 30.9%;
Conservative 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194 AA;
                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87
                                                                                          AA;
<u>:-</u>
::
                                                                            20
198
22745 N
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194
22362 Þ
                                            17.0%;
                                                                                          MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MW.
                                  19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19;
                                 Score 122; DB 13;
Pred. No. 1.1e-05;
9; Mismatches 38;
                                                                                         POTENTIAL.

PDGF-A SHORT FORM TYPE 1.

77ED143EBC94F4C2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 122; DB 1
Pred. No. 1e-05;
9; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.

PDGF-A SHORT FORM TYPE 2.

9BE4F4C213EE022B CRC64;
<del>..</del>
                                                                                                                                                                                                                                                                                                                                                                       PRT;
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=
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=
=
                                                                                                                                                             three forms
tor-A chain.
                                                                                                                                                                                                                                                                                                                                                                       198
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                                                                                                                                                                        of cDNA encoding
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 194;
                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE
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-
                                  Indels
                                                                                                                                                                                                                                                                  Euteleostomi;
                                                                                                                                                                                                                                                        Phasianinae;
                                   8
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                                  Gaps
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                                   4.
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RESULT OPPORT
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Best Local
                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  O9WVQ7
Q9WVQ7;
01-NOV-1999 (TrEMBLrel. 12, C
01-NOV-1999 (TrEMBLrel. 12, L
01-JUN-2001 (TrEMBLrel. 17, L
PDGF A (FRAGMENT).
                                                                                                                                     UL-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
PLATELET-DERIVED GROWTH FACTOR A-CHAIN.
Gallus gallus (Chicken)
                                                                                                                                                                                                                                                                                                                                                                                                                                     NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "APA hamsters PDGF A partial submitted (JUN-1999) to the EMBL; AB028637; BBA78768.1; HSSP; P01127; 1PDG:
                                                          SEQUENCE FROM N.A. MEDLINE=20302546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mesocricetus auratus (Golden hamster)
Eukaryota; Metazoa; Chordata; Craniat
Mammalia; Eutheria; Rodentia; Sciurog
                                                                                                                   Archosauria;
                                                                                                                               Eukaryota;
                                                                                                                                                                                                              Q9PUF7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nishida E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-APA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
in vivo and in vitro.";
Mech. Dev. 94:13-24(2000).
EMBL; AF188841; AAF01459.1;
                            "Platelet-derived growth factor A modulates in with and in witho.":
                                               Ataliotis P.;
                                                                                            NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=10036;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mesocricetus
                                                                                                                                                                                                                                                                         112
                                                                                                                                                                                                                                                                                           102 LMIRY----PSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 102
                                                                                                                                                                                                                                                                                                                    53
                                                                                                                                                                                                                                                                                                                                           45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      43
                                                                                                                                                                                                                                      44
                                                                                                                                                                                                                                                                                                                  AVCKTRTVIYEIPRS-QADPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKV
                                                                                                                                                                                                                                                                                                                                         ATCOPREVV - - VPLTVELMGTVAKQLV - PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AKVEYVRKKPKLKEVLVRLEEHMECTCTSTNTNS
                                                                                                                                                                                                                                                                      AKVEYVRKKPKLKEVQVRLEEHLGCTC----ATSNLNPD 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LMIRY - - - - PSSQLGEMSLEEHSQCECRPKKKDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AVCKTRTVIYEIPRS-QIDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRIHHRSVKV 152
                                                                                                                             gallus (Chicken).
ota; Metazoa; Chor
                                                                                                                                                                                                                                                                                                                                                                 31;
                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                           149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=KIDNEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                       149
                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                   Aves;
                                                                                                                                                                                                                                                                                                                                                                                                                           AA;
                                                           PubMed=10842055;
                                                                                                                  Neognathae;
                                                                                                                  Chordata; Craniata; Vertebrata; Euteleostomi;
Neognathae; Galliformes; Phasianidae; Phasiani
                                                                                                                                                                                                                                                                                                                                                                                                                          16963 MW;
                                                                                                                                                                                                                                                                                                                                                                            16.8%;
                                                                                                                                                                                                                                                                                                                                                                  18;
                                                                                                                                                                                                                                                                                                                                                            Score 121; Ub ...
Pred. No. 1e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL/GenBank/DDBJ
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Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                           C93814FA6D041A65 CRC64;
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                                                                                                                                                                                                             211
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                                    limb
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                                   chondrogenesis
                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cricetinae;
                                                                                                                   Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                 12;
                                                                                                                                                                                                                                                                                                                                                               Gaps
                                    both
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RESULT
Q9DE50
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Best Local S
Matches 30
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Best I
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                                                                                                                                                     InterPro; IPR000072; PDGF. pfam; PF00341; PDGF; 1. ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1. PROSITE; PS50278; PDGF 2; 1. SEQUENCE 195 AA; 22618 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF 1; 1.
PROSITE; PS50278; PDGF 2; 1.
SEQUENCE 211 AA; 24349 Mr
                                                                                                                                                                                                                                                           Liu L., Balasubramaniyan N.V., Ge
"The zebrafish PDGF-A/PDGFR-alpha
embryogenesis.";
                                                                                                                                                                                                                                                                                                                                  Brachydanio rerio (Zebrafish) (Zebra danio)
Eukaryota; Metazoa; Chordata; Craniata; Ver-
Actinopterygii; Neopterygii; Teleostei; Eut-
Cypriniformes; Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                 01-MAR 2001 (TIEMBLIEL. 16, Created)
01-MAR-2001 (TIEMBLIEL. 16, Last sequence up
01-DEC-2001 (TIEMBLIEL. 19, Last annotation
PLATELET-DERIVED GROWTH FACTOR A CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                       Q9DE50;
01-MAR-2001
                                                                                                                                                                                                                             EMBL; AF200950; AAG43478.1; HSSP; P01127; 1PDG.
                                                                                                                                                                                                                                                   Submitted (NOV-1999) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9DE50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR000072;
                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=7955;
 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          153 AKVEYVRKKPKLKEVLVRLEEHMECTCTSTNTNS 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 102 LMIRY----PSSQLGEMSLEEHSQCECRPKKKDS 131
                      87
                                              80
                                                                     31
                                                                                            Local Similarity
les 30; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45 ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Match
             HORKVVSWIDVYTRATCOPREVV--VPLTVELMGTVAKQLV-PSC-VTVQRCGGCCPDDG
MRCHPSKKHHRNVKVAKVEYVRRRPKLREVQVQLEDHLECVC
                                              HSRRKRS-IEEAVPAVCKTRTVIYEIPRS-QVDPTAANFLIWPPCGGEVRRCSGCCNTSN 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AVCKTRTVIYEIPRS-QIDPTSANFLIWPPCVEVTRCTGCCNTSSVKCQPSRIHHRSVKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
29; Conserv
                                                                                           16.0%;
nilarity 29.4%;
Conservative 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PDGF.
                                                                                                                                                       MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18;
                                                                                             22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
Pred.
                                                                                                        Score 115; DB 13; Pred. No. 6.2e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1A6AA3A5DBD42382 CRC64;
                                                                                                                                                        49B25831E1975604 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                             Mismatches
                                                                                                                                                                                                                                                                          R.;
signalling system
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No. 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 13;
.9e-05;
tes 39;
                                                                                                                                                                                                                                                                                                                                                  Euteleostei;
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